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**Documents No 6:-**

**6.1.Use case Diagram :-**

* + 1. **​Activity Diagram :-**
    2. **​Activity Diagram :-**

**6.3 a use case specification document. :-**

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| **1.Log In** | |
| **2. Use Case Description:** | This use case allows users to log in to the HDFC Bank home loan portal. Users provide their credentials (username and password) to access their accounts securely. |
| **3. Actors:** | 1. **Primary Actors:-** Registered Users (Customers, Bank Employees). 2. **Secondary Actors**:-Authentication System (e.g., 2FA provider) |
| **4. Basic Flow:** | 1. User navigates to the login page. 2. User enters a valid username and password. 3. The system verifies the credentials. 4. If credentials are valid, the user is authenticated. 5. User is redirected to their dashboard or homepage. |
| **5. Alternate Flow:** | **Invalid Credentials:**   1. User enters an incorrect username or password. 2. The system displays an error message. 3. User retries logging in up to three attempts. 4. After three failed attempts, the account is locked temporarily.   **Forgot Password:**   * 1. User clicks **"Forgot Password."**   2. The system prompts the user to reset their password via email or OTP. |
| **6. Exceptional Flows:** | **Server Unavailable:**   1. The system displays a maintenance or error message when the server is down. 2. **Network Issues:**    1. The system shows an error message indicating a connection problem. Session Timeout:    2. If the session expires during login, the user must re-enter credentials. |
| **7. Pre-Conditions:** | 1. User must have a registered account. 2. The login page must be accessible |

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| **8. Post-Conditions:** | 1. Successful login redirects the user to the appropriate dashboard. 2. Failed login attempts are logged for audit purposes. 3. Locked accounts are flagged for support |
| **9. Assumptions:** | 1. Users have access to their registered email or phone for 2FA. 2. System timeouts and session handling are in place. |
| **10. Constraints:** | 1. Maximum of three login attempts before account lockout. 2. Password complexity requirements must be met. |
| **11. Dependencies:** | 1. Authentication services (e.g., database, 2FA provider). 2. Secure HTTPS connection for all login requests. |
| **12. Inputs and Outputs:** | **Inputs:**  1.Username 2.Password   1. OTP (for 2FA-enabled users)   **Outputs:**   * 1. Success message and redirection to dashboard.   2. Error message for invalid credentials or system issues. |
| **13. Business Rules:** | 1. Password must be at least 8 characters long and include one uppercase letter, one number, and one special character. 2. The account locks for 15 minutes after three failed attempts. 3. Session expires after 15 minutes of inactivity. |
| **14. Miscellaneous Information:** | 1. **Audit Logs:** All login attempts (successful and failed) must be logged. 2. **UI Requirements:** Login page must include "Forgot Password" and "Help" links. 3. **Security:** All login data must be encrypted during transmission. |

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| **2. Loan Inquiry** | |
| **2.Use Case Description** | A process where a customer inquires about a loan product, including eligibility, interest rates, and terms, from a financial institution. |
| **3. Actors:** | **Primary Actors: Customer, Bank Staff (Loan Officer) Secondary Actors: Bank System, CRM System** |

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| **4. Basic Flow:** | 1. Customer visits the bank's website or contacts the bank. 2. Customer submits loan inquiry details (loan type, amount, etc.). 3. Bank staff receives the inquiry. 4. Bank staff processes the inquiry by checking eligibility and loan details. 5. Bank staff responds with loan options and terms. 6. Customer receives a response with detailed loan information. |
| **5. Alternate Flow:** | 1. Customer provides incomplete or incorrect information. 2. Bank staff requests additional details or corrections. 3. Once corrected, the inquiry process continues as in the basic flow. |
| **6. Exceptional Flows:** | 1. System fails to process the inquiry. 2. Customer is notified about system downtime and advised to retry later. |
| **7. Pre-Conditions:** | 1. Customer has internet access or visits the bank physically. 2. Customer has the required documents for the inquiry (optional). |
| **8. Post-Conditions:** | 1. Loan options and terms are provided to the customer. 2. The inquiry is recorded in the bank's system for follow-up. |
| **9. Assumptions:** | 1. The customer has a valid identity and basic financial information to inquire. |
| **10. Constraints:** | 1. Loan eligibility depends on the customer’s credit score, income, and other financial factors. |
| **11. Dependencies:** |  |

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|  | 1. Loan processing system is functional. 2. Bank staff is trained to handle loan inquiries. |
| **12. Inputs and Outputs:** | **Inputs:** Customer's inquiry details (loan amount, type, etc.).  **Outputs:** Loan options, eligibility results, and terms. |
| **13. Business Rules:** | 1. Loan eligibility criteria must be checked based on predefined rules. 2. Interest rates and loan terms should comply with bank policies. |
| **14. Miscellaneous Information:** | 1. Loan inquiries may be recorded for training and quality assurance purposes. |

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| **3.Application Submission** | |
| **2.Use Case Description** | A process where a customer submits an application for a product or service through an online platform or physical submission. |
| **3. Actors:** | **1.Primary Actors: Customer, System, Backend Processor 2.Secondary Actors: Support Staff, Payment Gateway** |
| **4. Basic Flow:** | 1. Customer accesses the application form. 2. Customer fills out the form with required details. 3. Customer submits the form. 4. System validates the information. 5. Backend processor reviews and processes the application. 6. Customer receives confirmation of application submission. |
| **5. Alternate Flow:** | 1. Customer submits incomplete or incorrect information. 2. System prompts for corrections or additional information. |

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|  | 3. Customer resubmits the corrected information.  3. Once corrected, the inquiry process continues as in the basic flow. |
| **6. Exceptional Flows:** | 1. System experiences a downtime or error. 2. Customer is informed and advised to retry later. |
| **7. Pre-Conditions:** | 1. Customer has necessary documents or information for the application. 2. Customer has access to the application platform (online or physical). |
| **8. Post-Conditions:** | 1. Application is submitted successfully and recorded in the system. 2. Confirmation is sent to the customer. |
| **9. Assumptions:** | 1. The customer understands the requirements for the application. 2. Necessary technical infrastructure is available to process the application. |
| **10. Constraints:** | 1. Certain fields in the application are mandatory, and incomplete submissions are not accepted.. |
| **11. Dependencies:** | 1. Backend systems are integrated for data validation and processing. 2. Payment gateways are integrated for applicable fee submissions. |
| **12. Inputs and Outputs:** | **Inputs: Application form details (name, address, etc.), uploaded documents. Outputs:** Application ID, confirmation receipt, status updates. |
| **13. Business Rules:** | 1. All mandatory fields must be filled out correctly. 2. Submissions must comply with legal and regulatory requirements. |
| **14. Miscellaneous Information:** | 1. Applications may be reviewed for further verification based on business policies. |

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| **4.Document Upload** | |
| **2.Use Case Description** | A process where a customer uploads necessary documents (e.g., identity proof, address proof, application form) into an online system for verification or processing. |
| **3. Actors:** | **1Primary Actors:** Customer, System, Document Management System  **Secondary Actors:** Support Staff, Admin |
| **4. Basic Flow:** | 1. Customer logs into the application system. 2. Customer navigates to the document upload section. 3. Customer selects the required document(s) to upload. 4. Customer clicks the "Upload" button. 5. The system verifies the document format and size. 6. The system uploads the document. 7. System sends a success notification to the customer. 8. Document is saved and accessible for further processing. |
| **5. Alternate Flow:** | 1. Customer attempts to upload a file in an unsupported format (e.g., DOCX instead of PDF). 2. The system prompts the customer to upload a valid file format. 3. Customer uploads the corrected file format. |
| **6. Exceptional Flows:** | 1. File upload fails due to network issues. 2. Customer is notified about the failure and advised to retry the upload. 3. System handles retries and logs the error for further investigation. |
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| **7. Pre-Conditions:** | 1. Customer has valid access credentials and has logged into the system. 2. Customer has the required documents in the correct format. 3. Customer has stable internet access for uploading. |
| **8. Post-Conditions:** | 1. The uploaded document is saved in the document management system. 2. The system provides a confirmation of successful upload to the customer. 3. Document is available for review or verification by the relevant staff. |
| **9. Assumptions:** | 1. The customer has the required documents available in a digital format. 2. The customer understands the format and size requirements for uploads. |
| **10. Constraints:** | 1. File size must not exceed the specified limit (e.g., 10MB). 2. Only specific file types (e.g., PDF, JPG) are accepted. |
| **11. Dependencies:** | 1. Document management system must be operational and able to handle file uploads. 2. Customer must have internet connectivity to upload the file. |
| **12. Inputs and Outputs:** | **Inputs:** Files (documents) selected by the customer for upload, customer’s identity and login details.  **Outputs:** Successful upload confirmation, error messages (if applicable), saved file in the system. |
| **13. Business Rules:** | 1. Documents must comply with security protocols (e.g., encryption during upload). 2. The uploaded documents should be accessible to authorized personnel for verification. 3. Uploaded files should be stored in a compliant, secure manner. |
| **14. Miscellaneous Information:** | 1. Document uploads are timestamped for tracking purposes. 2. The system may send a reminder if the customer fails to upload required documents within a specified time frame. |

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| **5.Document Verification** | |
| **2.Use Case Description** | A process where a customer uploads necessary documents (e.g., identity proof, address proof, application form) into an online system for verification or processing. |
| **3. Actors:** |  |

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|  | **1Primary Actors:** Customer, System, Document Management System  **Secondary Actors:** Support Staff, Admin |
| **4. Basic Flow:** | 1. Customer logs into the application system. 2. Customer navigates to the document upload section. 3. Customer selects the required document(s) to upload. 4. Customer clicks the "Upload" button. 5. The system verifies the document format and size. 6. The system uploads the document. 7. System sends a success notification to the customer. 8. Document is saved and accessible for further processing. |
| **5. Alternate Flow:** | 1. Customer attempts to upload a file in an unsupported format (e.g., DOCX instead of PDF). 2. The system prompts the customer to upload a valid file format. 3. Customer uploads the corrected file format. |
| **6. Exceptional Flows:** | 1. File upload fails due to network issues. 2. Customer is notified about the failure and advised to retry the upload. 3. System handles retries and logs the error for further investigation. |
| **7. Pre-Conditions:** | 1. Customer has valid access credentials and has logged into the system. 2. Customer has the required documents in the correct format. 3. Customer has stable internet access for uploading. |
| **8. Post-Conditions:** | 1. The uploaded document is saved in the document management system. 2. The system provides a confirmation of successful upload to the customer. 3. Document is available for review or verification by the relevant staff. |
| **9. Assumptions:** | 1. The customer has the required documents available in a digital format. 2. The customer understands the format and size requirements for uploads. |
| **10. Constraints:** |  |

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|  | 1. File size must not exceed the specified limit (e.g., 10MB). 2. Only specific file types (e.g., PDF, JPG) are accepted. |
| **11. Dependencies:** | 1. Document management system must be operational and able to handle file uploads. 2. Customer must have internet connectivity to upload the file. |
| **12. Inputs and Outputs:** | **Inputs:** Files (documents) selected by the customer for upload, customer’s identity and login details.  **Outputs:** Successful upload confirmation, error messages (if applicable), saved file in the system. |
| **13. Business Rules:** | 1. Documents must comply with security protocols (e.g., encryption during upload). 2. The uploaded documents should be accessible to authorized personnel for verification. 3. Uploaded files should be stored in a compliant, secure manner. |
| **14. Miscellaneous Information:** | 1. Document uploads are timestamped for tracking purposes. 2. The system may send a reminder if the customer fails to upload required documents within a specified time frame. |

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| **6.Background Check** | |
| **2.Use Case Description** | A process where uploaded documents are verified for authenticity, completeness, and compliance with required standards or regulations. |
| **3.Actors** | Primary Actors: Document Verification Officer, System Secondary Actors: Customer, Support Staff, Admin |
| **4.Basic Flow** | 1. Customer uploads the necessary documents. 2. System triggers the document verification process. 3. Document Verification Officer reviews the uploaded documents. 4. Officer cross-checks the documents against the customer’s information and regulatory requirements. 5. The system flags any discrepancies or missing documents for further review. 6. Officer either approves or rejects the documents based on the verification outcome. 7. Customer receives a notification about the verification status (approved or rejected). |
| **5.Alternate Flow** | 1. If the documents are incomplete or invalid, the system prompts the customer to upload missing or corrected documents. 2. Customer uploads the correct documents, and the verification process is restarted. |
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| **6.Exceptional Flows** | 1. System fails to verify the document due to system error or downtime. 2. Customer is informed about the issue and asked to retry later. 3. Officer cannot validate a document due to unclear or unreadable content, requiring the customer to resubmit clearer copies. | |  |
| **7.Pre-Conditions** | 1. Customer has successfully uploaded the required documents. 2. System is operational and capable of document processing. 3. Verification officer has the necessary tools and access to perform document checks. | |  |
| **8.Post- Conditions** | 1. Documents are either approved or rejected based on verification results. 2. Verification status is updated in the system. 3. Customer is notified of the verification outcome. | |  |
| **9.Assumptions** | 1. Documents provided by the customer are genuine and legally compliant. 2. The customer understands the requirements for document submission. | |  |
| **10.Constraints** | 1. Document verification can only be performed after successful upload. 2. The system can only verify documents in certain formats (e.g., PDF, JPG). | |  |
| **11.Dependencies** | 1. Document management system must be able to handle document verification. 2. The system relies on correct and up-to-date customer information for document comparison | |  |
| **12.Inputs and Outputs** | Inputs: Uploaded documents, customer details.  Outputs: Verification status (approved or rejected), error messages (if any), notification to the customer. | |  |
| **13.Business Rules** | 11. Documents must match the customer's submitted information to be approved.  2. Only valid, legible documents are considered for verification.  3. Rejected documents must be logged, and reasons for rejection must be recorded. | |  |
| **14.Miscellaneous Information** | 1. Documents may be stored for audit or compliance purposes. 2. Verification officers may escalate discrepancies to senior staff or management for further review. | |  |
| **6. Property Evaluation** | | | |
| **2.Use Case Description** | | A process in which a property is evaluated for its market value, condition, and suitability based on certain criteria, typically for buying, selling, or lending purposes. | |
| **3. Actors:** | | 1. Primary Actors: Property Evaluator, System 2. Secondary Actors: Property Owner, Real Estate Agent, Appraiser, Customer | |
| **4. Basic Flow:** | | 1. Property owner or agent submits property details to the system. 2. Property evaluator reviews the submitted details, including location, condition, and size. 3. Evaluator conducts an on-site inspection of the property (if required). 4. Evaluator compares the property with similar properties in the market (comparable market analysis). 5. Evaluator uses industry-standard tools or methods to calculate the property’s market value. 6. The system records the evaluation result and generates a report. 7. Property owner or client receives the evaluation report with detailed insights. | |
| **5.Alternate Flow** | | 1. If property details are incomplete, the system prompts the owner or agent to submit missing information. | |

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|  | 2. If a physical inspection is not needed, the evaluator can use external data or historical records to estimate the value. |
| **6. Exceptional Flows:** | 1. Property evaluator is unable to access the property for an inspection due to unforeseen circumstances. 2. The system fails to retrieve comparable property data, and the evaluator proceeds with alternative methods. 3. System errors or technical difficulties during evaluation, leading to delays or errors in the report generation |
| **7. Pre-Conditions:** | 1. The property owner or agent has submitted accurate and sufficient property details. 2. The property evaluator has access to necessary tools, market data, and historical property records. |
| **8. Post-Conditions:** | 1. A property evaluation report is generated and sent to the owner or client. 2. The system logs the evaluation for future reference or audits. |
| **9. Assumptions:** | 1. Property details provided by the owner or agent are accurate. 2. The evaluator has the expertise and tools required for an accurate assessment. |
| **10. Constraints:** | 1. Evaluations may be limited by the availability of comparable properties in the market. 2. The property must be accessible for an inspection if required. |
| **11. Dependencies:** | 1. Availability of local market data for comparisons. 2. The evaluator’s access to reliable tools or databases for property analysis. |
| **12. Inputs and Outputs:** | 1. **Inputs:** Property details (location, size, condition), market data, comparable property data, external evaluation tools. 2. **Outputs:** Property evaluation report (value, condition assessment, comparisons). |
| **13. Business Rules:** |  |

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|  | 1. Property evaluations must follow industry standards and local regulations. 2. The property evaluation report should be detailed and contain necessary disclosures for the client. |
| **14. Miscellaneous Information:** | 1. Property evaluation is used for various purposes such as buying, selling, and lending assessments. 2. Reports may include recommendations for improvements to increase property value. |

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| **7.Risk Assessment** | |
| **2.Use Case Description** | A process to identify, analyze, and evaluate potential risks associated with a property, transaction, or project to ensure informed decision-making and mitigate risks effectively. |
| **3. Actors:** | Primary Actors: Underwriter, System  Secondary Actors: Customer, Legal Team, External Risk Agencies |
| **4. Basic Flow:** | 1. Customer submits details related to the transaction, property, or project. 2. System collects relevant data from internal and external sources (e.g., market trends, credit reports, property records). 3. Risk analyst identifies potential risk factors (e.g., financial, legal, environmental risks). 4. Analyst evaluates the severity and likelihood of identified risks using standard models or tools. 5. System generates a comprehensive risk assessment report with mitigation recommendations. 6. Risk assessment results are shared with the customer or decision-makers for further |
| **5.Alternate Flow** | 1. If sufficient data is unavailable, the system requests additional information from the customer. 2. Risk analyst consults external agencies for more in-depth insights or data. |
| **6. Exceptional Flows:** | 1. System fails to retrieve data from external sources due to connectivity issues. 2. Incomplete or incorrect details provided by the customer hinder the analysis process. 3. Risk analyst identifies a high-risk factor that requires immediate escalation to senior management or legal advisors. |

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| **7. Pre-Conditions:** | 1. Customer provides accurate and sufficient details for the risk assessment. 2. System has access to required internal and external data sources. 3. Risk analyst has expertise and tools to perform the assessment. |
| **8. Post-Conditions:** | 1. Risk assessment report is generated and shared with relevant stakeholders. 2. Recommendations for risk mitigation are documented for further action. |
| **9. Assumptions:** | 1. Data retrieved from external sources is accurate and up-to-date. 2. Risk assessment follows standard methodologies and complies with regulatory guidelines. |
| **10. Constraints:** | 1. Risk assessment may be limited by the availability of real-time data. 2. High-risk scenarios may require additional time and resources for detailed analysis. |
| **11. Dependencies:** | 1. Access to external risk data sources (e.g., financial records, market trends, legal documents). 2. Integration of risk analysis tools with the system for automated calculations. |
| **12. Inputs and Outputs:** | **Inputs:** Customer data, transaction/project details, external risk data, market trends, historical records.  **Outputs:** Risk assessment report, mitigation recommendations, risk ratings. |
| **13. Business Rules:** | 1. All identified risks must be categorized by severity and probability. 2. Risk mitigation recommendations must be actionable and comply with legal and regulatory standards. |
| **14. Miscellaneous Information:** | 1. Risk assessments are crucial for informed decision-making in high-value transactions. 2. Reports may include visual data representations (e.g., risk heat maps, graphs). |

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| **8.Approval Process** | |
| **2.Use Case Description** |  |

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|  | A structured process for reviewing and approving submitted applications, documents, or requests based on predefined criteria and workflows. |
| **3. Actors:** | Primary Actors: Approver (e.g., Manager, Officer), System  Secondary Actors: Applicant, Review Committee, Notification System |
| **4. Basic Flow:** | 1. Applicant submits an application or request. 2. System validates the submission for completeness and accuracy. 3. The request is routed to the designated approver(s) based on predefined rules. 4. Approver reviews the submission and evaluates it against the required criteria. 5. Approver takes an action (approve/reject/request more information). 6. System updates the status of the request and notifies the applicant of the outcome. |
| **5.Alternate Flow** | 1. Approver identifies missing or incorrect information in the submission. 2. Approver requests additional details from the applicant. 3. Applicant submits the required details, and the process resumes from Step 3. |
| **6. Exceptional Flows:** | 1. Submission is invalid or incomplete, and the system rejects it automatically with feedback. 2. Approver encounters technical issues while reviewing the submission and escalates the issue to technical support. 3. Multiple approvers are required, but one or more fail to respond within the given timeframe, triggering escalation. |
| **7. Pre-Conditions:** | 1. The application or request is submitted through the designated system or channel. 2. Approvers are assigned and available for the review process. 3. The system has necessary workflows and approval rules configured. |
| **8. Post-Conditions:** | 1. The status of the application or request is updated (approved/rejected/pending). 2. Notifications are sent to relevant stakeholders about the decision. |

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| **9. Assumptions:** | 1. Applicants provide accurate and complete information in their submissions. 2. Approvers have the authority and access to make decisions on the request. |
| **10. Constraints:** | 1. Approval timelines may vary depending on the complexity of the request. 2. The system must comply with organizational or regulatory standards for audit trails. |
| **11. Dependencies:** | 1. Properly configured workflows and approval rules in the system. 2. Availability of approvers for timely decision-making. |
| **12. Inputs and Outputs:** | **Inputs:** Application/request details, supporting documents, system validation criteria.  **Outputs:** Approval/rejection decision, feedback to the applicant, updated system records. |
| **13. Business Rules:** | 1. All submissions must meet the minimum criteria for review (e.g., complete documents, required fields). 2. Approvers must adhere to organizational policies during the decision-making process. |
| **14. Miscellaneous Information:** | 1. Approval workflows may vary based on the type of application or request. 2. Audit trails of all actions taken during the approval process are maintained for compliance. |
| **9.Offer Letter Issuance** | |
| **2.Use Case Description** | A process for generating, reviewing, and issuing an offer letter to a selected candidate after successful completion of recruitment stages. |
| **3. Actors:** | Primary Actors: HR Representative, System Secondary Actors: Candidate, Hiring Manager |
| **4. Basic Flow:** | 1. HR Representative selects the candidate in the recruitment system. 2. System retrieves candidate details and job offer details (position, salary, joining date, etc.). 3. HR reviews and confirms the details. 4. System generates the offer letter based on a predefined template. |

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|  | 5. HR sends the offer letter to the candidate via email or recruitment portal.  6. Candidate acknowledges receipt and provides acceptance or feedback. |
| **5.Alternate Flow** | 1. If candidate details are incomplete, the system prompts HR to update the information. 2. If a candidate requests changes in the offer letter, HR revises the offer and repeats the issuance process. |
| **6. Exceptional Flows:** | 1. Offer letter generation fails due to system errors or missing templates. 2. Candidate rejects the offer, and the process transitions to the next candidate or role closure. 3. Legal or compliance issues arise with the offer details, requiring revision before issuance. |
| **7. Pre-Conditions:** | 1. Candidate has successfully cleared all recruitment stages. 2. HR has access to accurate candidate and job details. 3. Offer letter templates are available and configured in the system. |
| **8. Post-Conditions:** | 1. Offer letter is successfully issued to the candidate. 2. Candidate’s acceptance or rejection is recorded in the system. |
| **9. Assumptions:** | 1. Candidates respond to the offer letter within the specified timeframe. 2. HR has the authority to approve and issue the offer. |
| **10. Constraints:** | 1. Offer issuance timelines must align with organizational policies. 2. The offer letter must comply with labor laws and organizational standards. |
| **11. Dependencies:** | 1. Recruitment system integration with HR management tools. 2. Availability of predefined templates and legal compliance checks. |
| **12. Inputs and Outputs:** | **Inputs:** Candidate details, job role information, offer letter template.  **Outputs:** Offer letter, candidate response, updated recruitment status. |

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| **13. Business Rules:** | 1. Offer letters must include all mandatory fields such as job title, compensation, joining date, and terms and conditions. 2. Offer issuance should be documented for audit and compliance purposes. |
| **14. Miscellaneous Information:** | 1. Offer letters may include additional attachments such as employment contracts or company policies. 2. Tracking of offer acceptance/rejection rates is helpful for recruitment analytics. |

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| **10.Loan Agreement** | |
| **2.Use Case Description** | A process for generating, reviewing, and finalizing a loan agreement between the lender and the borrower based on approved loan terms and conditions. |
| **3. Actors:** | Primary Actors: Loan Officer, System Secondary Actors: Borrower, Legal Team |
| **4. Basic Flow:** | 1. Borrower agrees to the loan offer and submits necessary details. 2. System retrieves the loan details, terms, and borrower information. 3. Loan Officer reviews and confirms the details. 4. System generates the loan agreement using a predefined template. 5. Borrower reviews the loan agreement via the portal or in-person. 6. Borrower signs the loan agreement digitally or physically. 7. System updates the loan status to "Agreement Signed" and sends confirmation to relevant stakeholders. |
| **5.Alternate Flow** | 1. If there are discrepancies in the loan agreement, the borrower requests corrections. 2. Loan Officer revises the agreement and repeats the approval process. |

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| **6. Exceptional Flows:** | 1. System fails to generate the loan agreement due to missing or incorrect data. 2. Borrower refuses to sign the agreement, and the loan is canceled or renegotiated. 3. Legal issues arise during the review, requiring further review by the legal team. |
| **7. Pre-Conditions:** | 1. Loan application is approved. 2. Borrower has provided all required documentation and consent. 3. Loan agreement templates are available in the system. |
| **8. Post-Conditions:** | 1. Loan agreement is successfully signed and stored in the system. 2. Loan disbursement is ready for processing. |
| **9. Assumptions:** | 1. Borrower and lender are in agreement with the loan terms. 2. The system is capable of generating accurate loan agreements. |
| **10. Constraints:** | 1. Loan agreements must comply with local and international regulations. 2. Loan agreement generation and signing must adhere to organizational timelines. |
| **11. Dependencies:** | 1. Integration of the loan management system with document generation tools. 2. Legal review and approval workflows. |
| **12. Inputs and Outputs:** | **Inputs:** Borrower details, loan terms, agreement template, legal requirements.  **Outputs:** Finalized loan agreement, signed document, updated loan status. |
| **13. Business Rules:** | 1. Loan agreement must include all required terms (interest rate, repayment schedule, penalties, etc.). 2. Signed agreements must be archived securely for compliance purposes. |
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| **14. Miscellaneous Information:** | 1. Loan agreements may include annexures such as collateral details or guarantor information. 2. Notifications are sent to both borrower and loan officer upon agreement signing. |

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| **11.Loan Disbursement** | |
| **2.Use Case Description** | A process to release the approved loan amount to the borrower after the loan agreement is signed and verified. |
| **3. Actors:** | Primary Actors: Loan Officer, System  Secondary Actors: Borrower, Bank, Compliance Team |
| **4. Basic Flow:** | 1. Borrower signs the loan agreement. 2. Loan Officer reviews the signed agreement and verifies all pre-disbursement conditions. 3. System calculates the disbursement amount, including any deductions (e.g., processing fees, insurance). 4. Loan Officer approves the disbursement request. 5. System processes the disbursement and transfers funds to the borrower's designated account. 6. Borrower receives notification of the disbursement. |
| **5.Alternate Flow** | 1. Borrower requests to defer the disbursement. 2. Loan Officer reschedules the disbursement date, and the system updates the loan status accordingly. |
| **6. Exceptional Flows:** | 1. System fails to process the disbursement due to technical errors or insufficient funds in the lending account. 2. Borrower's account details are invalid, and the disbursement is rejected. 3. Compliance team identifies discrepancies and places the disbursement on hold. |
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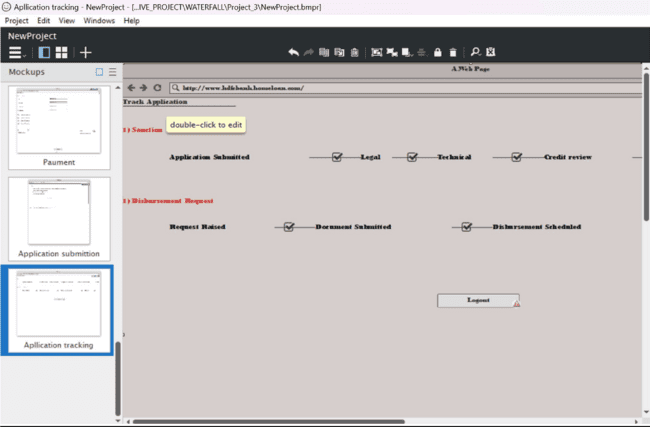
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| **7. Pre-Conditions:** | 1. Loan agreement is signed and stored in the system. 2. All pre-disbursement conditions (e.g., collateral verification, borrower KYC) are fulfilled. 3. Disbursement details (e.g., account number, loan amount) are accurate and complete. |
| **8. Post-Conditions:** | 1. Loan amount is transferred to the borrower's account. 2. System updates the loan status to "Disbursed." 3. Notifications are sent to relevant stakeholders. |
| **9. Assumptions:** | 1. Borrower provides valid and accurate account details. 2. System is capable of processing the disbursement without delays. |
| **10. Constraints:** | 1. Disbursement must comply with banking and regulatory standards. 2. Funds transfer must occur within a defined timeline after approval. |
| **11. Dependencies:** | 1. Integration with the banking system for fund transfer. 2. Compliance checks to ensure adherence to legal and financial regulations. |
| **12. Inputs and Outputs:** | **Inputs:** Signed loan agreement, borrower account details, loan disbursement amount.  **Outputs:** Disbursed loan amount, transaction confirmation, updated loan record. |
| **13. Business Rules:** | 1. Disbursement amount must not exceed the approved loan amount. 2. All pre-disbursement conditions must be fulfilled before processing. 3. Transaction records must be maintained for audit and compliance. |
| **14. Miscellaneous Information:** | 1. Notifications include transaction ID, disbursement date, and credited amount. 2. Disbursement may include automatic deductions for fees or taxes. |

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| **12.Status Tracking** | |
| **2.Use Case Description** | A process to allow borrowers and stakeholders to track the current status of a loan application or disbursement through an online system. |

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| --- | --- |
| **3. Actors:** | Primary Actors: Borrower, Loan Officer, System Secondary Actors: Support Team |
| **4. Basic Flow:** | 1. Borrower logs into the system or app. 2. System authenticates the user and retrieves loan application details. 3. Borrower views the current status (e.g., Submitted, In Review, Approved, Disbursed). 4. System provides detailed information about the next steps or pending requirements. 5. Borrower can request clarification or contact support if needed. |
| **5.Alternate Flow** | 1. Borrower searches for the application status using a reference number without logging in. 2. Borrower receives email or SMS updates about changes in loan status. |
| **6. Exceptional Flows:** | 1. System fails to retrieve the application details due to technical issues. 2. Borrower provides incorrect credentials or application reference number, and access is denied. |
| **7. Pre-Conditions:** | 1. Borrower has an active loan application in the system. 2. System has real-time updates on the loan processing stages. |
| **8. Post-Conditions:** | 1. Borrower successfully views the current status and any pending tasks. 2. System logs the borrower's activity for audit purposes. |
| **9. Assumptions:** | 1. Borrower has internet access and valid login credentials. 2. Loan status updates are recorded in the system in real-time. |
| **10. Constraints:** |  |

|  |  |
| --- | --- |
|  | 1. Status tracking must comply with data privacy regulations. 2. Access to the status tracking system must be secure and user-friendly. |
| **11. Dependencies:** | 1. Integration with the loan management system to fetch real-time updates. 2. Notifications system for email/SMS updates. |
| **12. Inputs and Outputs:** | **Inputs:** Borrower credentials or reference number.  **Outputs:** Current loan status, next steps, pending requirements, support contact details. |
| **13. Business Rules:** | 1. Only authorized users can access the application status. 2. Borrower must be notified of any significant status changes promptly. 3. System must ensure data accuracy and integrity. |
| **14. Miscellaneous Information:** | 1. Status tracking system may include a progress bar for a visual representation of loan stages. 2. FAQs or chatbot support may be integrated to assist borrowers with common queries. |

**Document 7- Screens and pages**



**Documents 8 :-Write a paragraph on your experience using Visio :-**

* 1. **Microsoft Visio :-**

Using Microsoft Visio has been an enriching experience, as it provides a comprehensive suite of features for creating professional diagrams and visualizations. I have leveraged its robust templates and stencils for designing flowcharts, organizational charts, UML diagrams, and network architecture layouts. The drag-and-drop interface simplifies adding shapes, connectors, and annotations, while the alignment guides ensure precise formatting. I appreciate the data-linking capabilities that enable me to integrate real-time data into diagrams, making them dynamic and insightful. The layering feature is particularly useful for complex designs, allowing me to segregate elements for clarity. Visio's collaboration tools, including real-time editing and commenting, facilitate teamwork, and the export options to formats like PDF, PNG, and SVG provide versatility for sharing. Additionally, its compatibility with other Microsoft 365 applications enhances productivity. Overall, Visio's user-friendly interface and powerful features make it a go-to tool for creating detailed and professional diagrams.

* 1. **Axure :-**

Using Axure has been an insightful experience, especially for creating interactive prototypes and wireframes. The tool's ability to build detailed, interactive designs without requiring extensive coding knowledge is a standout feature. I’ve utilized Axure to create wireframes with dynamic panels, conditional logic, and animations, enabling stakeholders to visualize the user experience effectively. Its built-in widgets and customizable libraries streamline the design process, while the ability to add notes and annotations improves communication with teams and clients. I also value Axure’s support for responsive design, allowing me to create prototypes for multiple devices. The cloud- sharing functionality simplifies collaboration by enabling real-time feedback and version control. Additionally, the export options to HTML and integrations with other tools like Jira make it versatile for development workflows.

Overall, Axure provides a powerful platform for turning ideas into interactive, functional prototypes efficiently.

**Document 9- BA experience :-**

1. **​Requirement Gathering Phase: -**
   * **Requirement Prioritization Using MOSCOW Technique:** I categorized the requirements into four groups:
2. **Must-Have:** Core functionalities like online application submission, secure document uploads, and real-time notifications.
3. **Should-Have:** Features such as centralized property evaluation and AI-powered document verification.
4. **Could-Have:** Enhancements like intuitive UI/UX for loan applications.
5. **Won’t-Have:** Low-priority functionalities not immediately essential.
   * **Handling Client Unavailability:** During the client’s unavailability, I coordinated with alternate points of contact provided by the client. I ensured to capture critical information by scheduling timely Document 7- Screens and pages discussions and sending concise email summaries for validation.
   * **Requirements Validation Using FURPS Technique:** I validated requirements across five key criteria:-
6. **Functionality:** Verified loan workflows like application submission, background checks, and loan disbursement.
7. **Usability:** Assessed user-friendly features like status notifications and mobile accessibility.
8. **Reliability:** Checked for system uptime and secure data storage requirements.
9. **Performance:** Ensured support for 10,000 concurrent users with a response time under 3 seconds.
10. **Supportability:** Focused on scalability and integration capabilities with third-party systems.
    * **Addressing Duplicate Requirements:**

Many requirements were repeated across stakeholder inputs. I created a traceability matrix to identify and eliminate redundancies, ensuring clean and precise documentation.

* + **Prototyping for Clarity:**

I utilized prototyping to visually represent workflows, such as the loan application process and document verification. This allowed stakeholders to refine and provide more specific requirements, minimizing ambiguity.

1. **Requirement Analysis Phase :-**
   * **Drawing UML Diagrams:**

Created Use Case Diagrams to capture user interactions with the home loan application system, including modules like online application submission, document upload, and loan disbursement.

Designed Class Diagrams to define key entities such as "Customer," "Loan Application," "Property," and "Payment."

Developed Sequence Diagrams to depict workflows, such as loan approval and document verification.

* + **Using Activity Diagrams for Process Flow:**

1. Mapped out step-by-step activities for core processes like:
2. Loan Application Submission: Filling the form, uploading documents, and initiating the process.
3. Approval Workflow: Credit assessment, property evaluation, and decision-making.
   * **Team Collaboration and Feedback:**
4. Communicated all UML and activity diagrams with team members during review sessions.
5. Addressed concerns or disagreements raised by stakeholders or developers by integrating their feedback.
6. Iteratively modified diagrams to align with both business needs and technical feasibility.
7. Preparing Key Documentation:
   * **Business Requirements Specification (BRS):**
8. Focused on outlining high-level business objectives, such as improved customer experience and automated workflows.
9. Captured functional and non-functional requirements.
   * **Software Requirements Specification (SRS):**
10. Provided detailed, technical descriptions of system features.
11. Included diagrams, user stories, and requirements traceability matrices.
12. **Design Phase**
    * **Key Responsibilities as a Business Analyst (BA):**
13. **Test Case Preparation from Use Case Diagrams:**
    * Used **use case diagrams** to derive both **positive and negative test cases**.
    * Ensured comprehensive test coverage by considering edge cases and potential failure scenarios.
14. **Client Communication on Design and Solution Documents:**
    * Collaborated with the client to review and refine **design and solution documents**.
    * Addressed feedback promptly to align the design with business expectations.
15. **Focus on Comprehensive Test Case Coverage:**
    * Paid attention to detail to ensure no test case was missed, minimizing the risk of undetected issues in later stages.
    * Reviewed test cases with the QA team to ensure alignment with functional and non- functional requirements.
16. **Test Data Preparation:**
    * Prepared diverse test datasets, including edge cases, invalid inputs, and performance testing data, to validate the system thoroughly.
17. **Updating the RTM (Requirements Traceability Matrix):**
    * Continuously updated the RTM to confirm that all requirements were addressed in the design and testing phases.
    * Tracked changes and ensured traceability of requirements to test cases and design artefacts.
18. **Development Phase**
    * **Key Responsibilities as a Business Analyst (BA):**
19. **Organizing JAD (Joint Application Development) Sessions:**
    * Scheduled JAD sessions to gather input from stakeholders, developers, and testers for aligning development goals.
    * Documented all discussions and decisions made during these sessions for reference.
20. **Clarifying Queries for the Tech Team:**
    * Acted as a liaison between the technical team and stakeholders to resolve ambiguities in requirements.
    * Provided additional context or documentation when developers faced challenges understanding the business logic.
21. **Handling Team Dynamics During JAD Sessions:** Addressed disagreements or lack of cooperation by:

* Initiating **one-on-one discussions** with concerned team members.
* Explaining the importance of collaboration and the potential impact of their actions on the project.
* Fostering a **healthy team environment** by encouraging open communication.

1. **Using Diagrams for Unit Development:**
   * Referred to UML diagrams (use case, sequence, and class diagrams) and activity diagrams to guide developers in coding individual units or modules.
2. **Conducting Regular Meetings:**
   * Organized regular **scrum-style meetings** to track progress, address blockers, and maintain alignment.
   * Handled challenges such as unavailable team members by:
     + Recording meeting sessions.
     + Sharing recordings with absentees.
     + Conducting one-on-one follow-ups to ensure no information gap.
3. **Testing Phase :-**
4. **Test Case Preparation from Use Cases:**
   * Created detailed **test cases** based on use case diagrams to cover all possible scenarios, including functional and edge cases.
   * Ensured both **positive and negative scenarios** were addressed for thorough validation.
5. **Perform High-Level Testing:**
   * Participated in **high-level testing** to verify the system against the requirements.
   * Coordinated with the QA team to resolve discrepancies or mismatches in expected outcomes.
6. **Test Data Management:**
   * Requested **test data** from the client, ensuring it was comprehensive and representative of real-world scenarios.
   * Validated test data for accuracy and relevance to support effective testing.
7. **Updating RTM:**
   * Continuously updated the **Requirements Traceability Matrix (RTM)** to ensure traceability of test cases back to requirements.
   * Confirmed that all requirements were adequately tested and validated.
8. **Client Signoff:**
   * Facilitated **client review and signoff** of the tested features.
   * Addressed client concerns and clarified any remaining ambiguities to build confidence in the deliverables.
9. **Prepare Client for UAT (User Acceptance Testing):**
   * Provided the client with **UAT test cases** and supported them in setting up their test environment.
   * Conducted **UAT preparation sessions** to guide the client in testing workflows effectively.
   * Acted as a liaison between the client and the development/QA teams to address UAT feedback and ensure smooth execution.
   * 5.Testing Phase :-
10. **Deployment Phase**
11. **Forwarded RTM to Client:**
    * Delivered the final **Requirements Traceability Matrix (RTM)** to the client.
    * Ensured the RTM was attached to the **Project Closure Document** as part of the final deliverables.
12. **End-User Manuals:**
    * Collaborated with the technical writing team to **complete end-user manuals**.
    * Verified that the manuals were comprehensive, user-friendly, and aligned with business workflows.
    * Shared the finalized manuals with the client for review and distribution.
13. **Organizing Training Sessions:**
    * **Planned and scheduled training sessions** for end-users to familiarize them with the system.
    * Coordinated with the client and subject matter experts to ensure the training covered all key functionalities and processes.
14. **Attendance Management:**
    * Monitored and ensured that all designated candidates attended the training sessions.
    * Followed up with absentees and arranged **make-up sessions** to maintain uniform understanding.
15. **Final Handover:**
    * Verified that all deployment-related tasks were completed before the system was handed over to the client.
    * Ensured smooth knowledge transfer and support during the transition to the live environment.

The End