**Waterfall Model Documents**

**Document -1 Business case document template.**

* Project Initiation:

The project was initiated to build better customer relationship management, increase the sales of the sales team and hence increase the revenue of the company. This would further initiate the good publicity in the market

* Needs and Expectations:

Initially the data was entered manually and took a whole lot time of the sales team in the process. Hence, the need for such software was generated wherein the sales team can enter the data and update the data smoothly and also access the data for report generation. This CRM software aims to meet these expectations of the company stakeholders

* Stake Holders:

Stake holders can be identified by considering their influence and interest. A list can be prepared of the stakeholders based on the interests and then they are prioritised based on the influence they have in the project using Stakeholder mapping. The key stakeholders would include the sales team, their reporting manager, the CEO and CTO of the company, the technicians and developers and the end users.

* CRM Technology

The sales team and the sales co-ordinator were using the MS Excel for saving the data and were updating in the same file every day. Generating reports from that file was a very difficult and time-consuming task. This also affected their output and performance.

This project could solve the problems of data entry, data updating and data reporting primarily. It would secondarily help in the increasing the sales of the sales team and the revenue of the company. Further this would lead to increase in customer base, customer relationship management, customer satisfaction and customer retention.

* Adaption:

First change is to train the sales team and the sales co-ordinator and also the technical team. If required the workflow also have to be changed. The office setup should also be considered for change as the server and some computers might need to be changed. The rights of the CRM software should be in the hands of the Sales Head and further delegations should be done teamwise.

* Resources:

The resources required are computers with this application installed in it, proper and speed internet connection and servers. Human resources like the testers and the technicians.

* Risks:

The risks include the sales team failing to adapt to the new technology and also fear of failure of system integration. Not having skilled human resources would also add to the risk of the organisation.

* ROI:

This application is going to save the time of the sales team and the sales co-ordinator and hence will add to the performance of the team and incur more sales and revenue as the customer satisfaction would be higher. The company might start to see positive returns in 2-year time.

**Document -2 BA Strategy.**

* Enterprise Analysis:

As a BA, firstly did the enterprises analysis which includes SWOT analysis, Gap analysis, risk analysis and feasibility study.

* Stakeholder Identification:

Then I identified and shortlisted the Stakeholders as per their interest and influence in the project and by using the stakeholder mapping. Once Stakeholder list is ready, I analysed the stakeholders with RASCI matrix.

* Requirement Elicitation, Prioritisation and validation:

After this I started to gather the requirement from the stakeholders using elicitation technique of interview and brain storming. These 2 techniques helped me to gather most of the requirements.

This was followed by prioritising the requirements for which I used the MOSCOW technique. This helped me to understand which requirement are Must to be included, should be included, could be included and wouldn’t be included. Followed by this would come validating the requirements.

For validating the requirement, I used the FURPS technique that would help me to validate the requirements based on their functionality, usability, reliability, performance and supporting. Once the requirements are validated, we need to document the requirements.

* Business Document:

As a business analyst I prepared BRD (business requirement document), URD (stakeholder requirement document), FS/FRS (Functional requirement specification).

* Design:

After this I modelled the requirements by using UML (unified modelling language). By using these small diagrams, we can bring the more clarity on that topic. I started preparation of use cases, activity diagrams and sequence diagrams as and when required.

Then we need to take sign off on the documents

We always ask sign off over email; provide deadline date on the email. If the deadline is missed because of time, ask them to provide what date they can meet. Also, we can organize the walkthrough sessions for taking the sign off. We can send a follow up reminder. Sometimes it happens that there are many stakeholders and no one wants to be the first to sign off at that time, so need to arrange a meeting and explain all the points, this may give them a confidence to sign off.

* Development:

Then we communicate the requirements to technical team. We share this documents and diagrams and call them for walk through meeting and explain everything and explain what needs to be done.

After this the technical team will take the project to the next level that is design, development and testing phase. I collaborated with the quality assurance team to develop test cases and ensured that the developed solutions met the defined requirement.

During the development stage I kept a record to track the requirements by using requirement traceability matrix.

Once the development starts client always comes up with change request. And we should handle the change request. For handling the change request first tried to understand the reason for change, understand the impact of change then documented that change. After this change request was sent to the project manager for approval. I ensured that the change is minor or complex. If its complex it will not only expand the scope of the project drastically but also lead to increase the delivery time. I helped the stakeholder to understand the impact.

In between to update the progress of the project to stakeholders I communicated constantly or sent regular status report to them. End user manual is also developed during this.

I preferred to establish a clear communication with stakeholders and solve conflict to obtain the approval.

* Testing:

Once this project development is completed, client is going to test it before accepting it, known as UAT. I arranged the UAT, communicated the stakeholders to clarify any requirements that are unclear, schedule retest if needed and take sign off from UAT testers. I checked with each requirement and the test cases and made sure that each of the requirements mentioned by the stakeholders and considers and test cases were successful with the help of co-ordination with the RTM. The RTM is also final updated and attached to the project closure document.

* Deployment and maintenance:

The final product is deployed to the end user. End user manual is shared with the end user. The product is deployed and training is given to the End users. Feedback was also taken from the end user to understand if the product is working well.

**Document: 3 Functional specifications**

|  |  |
| --- | --- |
| Project name | Customer Relationship Management |
| Customer name | Quick Heal Technologies Ltd |
| Project Version | 1.0 |
| Project Sponsor | Mr. Avanish Srivastav |
| Project manager | Mr. Harsh Jadhav |
| Project Initiation date | 01.02.2025 |

**Functional Requirement specifications**:

|  |  |  |  |
| --- | --- | --- | --- |
| Req ID | Req Name | Req Description | Priority |
| FR001 | Login | User should be able to login to the application with ID and password | 1 |
| FR002 | Reports | User should be able to generate desired report from the application in excel format | 4 |
| FR003 | Feedback | User should be able to read and give feedback from and to the customer | 2 |
| FR004 | Data Update | Data must get updated after feedback from the user | 3 |
| FR005 | Access customer details | User should be able to access the details of the customer | 6 |
| FR006 | Add customer details | User should be able to add the details of the customer | 5 |
| FR007 | Leads management | User should be able to view and save the leads in the application | 9 |
| FR008 | Contact Management | User must be able to manage and update the contact details of the customer into the application | 8 |
| FR009 | SMS the customer | User should be able to SMS the customer from the application | 10 |
| FR010 | Integration with mobile | User should be able to open the application on various systems within the company and his own mobile number | 7 |

**Document 4- Requirement Traceability Matrix**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Req ID | Req Name | Req description | Design | D1 | T1 | D2 | T2 | UAT |
| FR001 | Login | User should be able to login to the application with ID and password | Yes | Yes | Yes | Yes | Yes | Yes |
| FR002 | Reports | User should be able to generate desired report from the application in excel format | Yes | Yes | Yes | Yes | Yes | Yes |
| FR003 | Feedback | User should be able to read and give feedback from and to the customer | Yes | Yes | Yes | Yes | No | Pend  ing |
| FR004 | Data Update | Data must get updated after feedback from the user | Yes | Yes | Yes | Yes | Yes | Yes |
| FR005 | Access customer details | User should be able to access the details of the customer | Yes | Yes | Yes | Yes | No | Pend  ing |
| FR006 | Add customer details | User should be able to add the details of the customer | Yes | Yes | Yes | Yes | No | Pend  ing |
| FR007 | Leads management | User should be able to view and save the leads in the application | Yes | Yes | Yes | Yes | Yes | Yes |
| FR008 | Contact Management | User must be able to manage and update the contact details of the customer into the application | Yes | Yes | Yes | Yes | No | Pend  ing |
| FR009 | SMS the customer | User should be able to SMS the customer from the application | Yes | Yes | Yes | Yes | No | Pend  ing |
| FR010 | Integration with mobile | User should be able to open the application on various systems within the company and his own mobile number | Yes | Yes | Yes | Yes | Yes | Yes |

**Document 5- BRD Template**

**Customer Relationship Management**

**PROJ-CRM**

**1.0**

**Swapnali Jadhav**

**1. Document Revisions**

|  |  |  |
| --- | --- | --- |
| **Date** | **Version Number** | **Document changes** |
| 01.02.2025 | 1.1 | Initial Draft |
| 8.02.2025 | 1.2 | Added Summary |
| 15.02.2025 | 1.3 | Updated Target dates |
| 21.02.2025 | 1.4 | Ready for publication |

**2. Approvals**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Role** | **Name** | **Title** | **Signature** | **Date** |
| Project Sponsor | Mr. Avanish Srivastav | Country Head |  | 01.02.2025 |
| Business Owner | Mr. Kailash Katkar | CEO |  | 01.02.2025 |
| Project Manager | Mr. Harsh Jadhav | CTO |  | 01.02.2025 |
| System Architect | Mr. Amit Kulkarni | Technical Head |  | 02.02.2025 |
| Development Lead | Mrs. Kranti Nachare | Development Head |  | 02.02.2025 |
| User Experience Lead | Mr. Sumit Metakari | Service Head |  | 03.03.2025 |
| Quality Lead | Mrs. Gauri Phale | Q. A Head |  | 03.03.2025 |
| Content Lead | Mr. Sachin Sutar | HR Head |  | 03.03.2025 |

**3. RACI Chart for This Document**

The RACI chart identifies the persons who need to be contacted whenever changes are made to this document. RACI stands for responsible, accountable, consulted, and informed. These are the main codes that appear in a RACI chart, used here to describe the roles played by team members and stakeholders in the production of the BRD. They are adapted from charts used to assign roles and responsibilities during a project.

Codes Used in RACI Chart

\* Authorize Has ultimate signing authority for any changes to the document.

R Responsible Responsible for creating this document.

A Accountable Accountable for accuracy of this document (for example, the project manager)

S Supports Provides supporting services in the production of this document

C Consulted Provides input (such as an interviewee). I Informed Must be informed of any changes

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Position** | **Req G** | **Req A** | **Design** | **Code** | **Test** | **Deploy** |
| Mr. Avanish Srivastav | Country Head | **A** | **C** | **I** | **I** | **I** | **I** |
| Mr. Kailash Katkar | CEO | **A** | **C** | **C** | **C** | **C** | **C** |
| Mr. Harsh Jadhav | CTO | **R** | **C** | **I** | **I** | **I** | **I** |
| Mr. Amit Kulkarni | Tech Head | **I** | **I** | **C** | **C** | **C** | **A** |
| Mrs. Kranti Nachare | Devlop Head | **I** | **I** | **R** | **R** | **R** | **A** |
| Mr. Sumit Metakari | Service Head | **I** | **I** | **\*** | **\*** | **\*** | **A** |
| Mrs. Gauri Phale | Q. A Head | **I** | **I** | **\*** | **\*** | **\*** | **A** |
| Mr. Sachin Sutar | HR Head | **A** | **IFrules** | **I** | **I** | **I** | **I** |

**4. Introduction**

**4.1. Business Goals**

Need: Quick heal Technologies Limited is a successful antivirus company and this company goals to increase its sales by 10% and increase the customer retention rate by 5% for which the Business owner need to utilise full time for the sales team.

**4.2. Business Objectives**

To provide an IT solution for: The Business owner need to utilise full time for the sales team and hence introduce a software application which will help them do so by entering their daily sales and lead closed data in the software. They can also easily generate report which was tedious earlier. Data viewing for all levels of management would also be easier with this application.

It will be installed initially on the computers at the office and the mobile phones of the sales team also so that they can upload and view the required data from remote also. This will lead to increase its sales by 10% and increase the customer retention rate by 5%.

**4.3. Business Rules**

1. Quick Heal is a customer-oriented company hence the customer satisfaction is the topmost rule.

2. The ticket generated by the customer is responded to within 24 hours.

3. In the organisation approvals are to taken by the team head of the country head and he takes approval from the CEO.

**4. Company aims at recovering the ROI in 3 years.**

5. No more than Rs. 2500000/- (Twenty-five lakhs only) will be assigned for the project.

6. Project has to be delivered till 01.12.2025

7. A minimum of 2 Technicians and 2 developers will be assigned from the Quick heal side.

**4.4. Background**

* Team had to maintain all the data in Microsoft excel sheet.
* While reporting it to the reporting manager team had to give this data in excel formats only.
* Creating excel sheets with different format was a problematic and tiring job.
* Team had to make different excel sheets for different types or requirements from the manager.
* This also caused late feedback long response time to the end users
  + Introducing an application which helps to record all the customer data.
  + The data should be easy to enter.
  + BA and SME along with the manager should have access to the application.
  + The application must be able to generate various reports and maintain customer data.
  + Improve records availability and accessibility of information, collateral forms and documents
  + Reduce the wait time.
  + Reduce the response time.
  + Make data entry easier.
  + Make the report generation easier.
  + Help to maintain proper customer data.

**4.5. Project Objective**

* Improve records availability and accessibility of information, collateral forms and documents and this will further reduce the time consumed in documentation.
* Reduce the wait time so that customer don’t have to wait for any feedback from the sales team.
* Reduce the response time for the end user from 24 hours to 18 working hours which will lead to customer retention.
* Make data entry easier so that the sales team do not have to type each and every data as there would be drop down options and also various tabs for various cases.
* Make the report generation easier would be also a main project objective as this would help the sales team to understand where they lagging in terms of the sales figure and also will be able to understand if any feedback to be given is pending.
* Help to maintain proper customer data through making the customer ID so that the sales team can know about that particular customer even if they are getting enquiry after a long period and understand when the customer has purchased the product and renewed the product.

**4.6. Project Scope**

* The objective of the project is to reduce the reporting time of the sales team so that they can concentrate on the customer relations.
* This will lead to increase in sales by 10 % and customer retention will be increased by 5%
* For this a team is hired from within the organisation and they with the help of the Business analyst will prepare for the new application.
* This project has to be completed by 01.12.2025.
* The cost of the project should not exceed Rs. 2500000/- (Twenty-five lakh Rupees only)
* The risks included are scope creep and that the project over runs the budget as the budget is kept very low.

**4.6.1. In Scope Functionality**

* Contact management
* Lead tracking
* Sales pipeline visualisation
* Reporting to team lead
* Reporting to branch manager
* SMS option

**4.6.2. Out Scope Functionality**

* Call option
* Sharing on social media
* Email facility
* Digital marketing

**5. Assumptions**

* User is ready to adapt to the new system
* All the customers details can be captured
* Data feed is sufficient for data analysis and report generation
* System integration
* Mobile is compatible
* Resources availability
* Project delivery time will not affect market conditions

**6. Constraints**

* Time bound
* Extra cost incurred
* Scope creep
* Resources unavailability
* System integration

**7. Risks**

* User resistance: Few employees may find it difficult to adapt to new features. This risk should be avoided by giving them proper motivation and training about the software.
* Poor data: Sometimes data collected can be not accurate and this will lead to poor report generation. This risk should be mitigated by asking the sales team to verify the data twice.
* Scope creep: Sometimes unforeseen issues can lead to scope creep like the changes in the Government rules. These risks have to be accepted
* System integration: Sometimes the existing system may not work properly after the new software application in installed. This risk should be transferred to the technical department and development team who will look into it and do the needful.

**Technological Risks**

* Software malfunction
* Compatibility issues with existing system
* Data migration errors
* Security breaches

**Skills Risks**

* Team lacking necessary technical skill
* Low expertise
* Lack of data analysis skill

**Political Risks**

* Changes in government rules
* Changes in government policies
* Changes in government regulations
* Political instability

**Business Risks**

* Loosing potential customers
* Collapsed customer relation
* Downfall of sales
* Monetary loss

**Requirements Risks**

* Poor documentation of requirements
* Scope creep
* Increased cost
* Resistance to change
* Areas like performance, scalability, reliability, portability and compatibility are most likely to be not captured.

**Other Risks**

* Unclear goals and objectives

**8. Business Process Overview**

Business cycle of a CRM software has the following cycle:

1. Reaching a potential customer
2. Customer acquisition
3. Conversion
4. Customer retention
5. Customer loyalty

**To go through this following are the steps:**

**1. Generate brand awareness**

The first step in acquiring new customers is to introduce them to your business. The Marketing team generally takes on this task using Learning about your target audience, segmenting your target audience, creating marketing campaigns that speak to the target demographics.

**2. Acquire leads**

Once there is awareness of our product in the market, the sales team or marketing team or both will start to generate lead for the sale of the product. This could be done through one-to-one contact, contact over phone, bulk mailing, bulk SMS and simply adding contact details on our website and also addition contact number to the posters of our product. CRM software can make lead generation very easier.

**3. Convert leads into customers**

To convert the lead to customers, sales reps’ must will speak to the customer and generate a need for the product and if leads do seem likely to make a purchase, reps must then be able to nurture them further and build their trust enough to convert. This could get easier with the CRM software

Reps should also use their excel sheets to set reminders and tasks to follow up with interested leads.

**4. Provide superior customer service**

Customer service is the biggest factor that determines a consumer’s loyalty to a brand. Conversely, poor customer service can cost you customers and negatively impact your reputation. Support teams must be able to deliver superior support whenever, wherever, and however their customers expect it.

Support agents can easily access the historical customer information they need to resolve a ticket quickly with the existing database.

**5. Drive upsells**

Personalised recommendations via email or SMS should be sent to the customer regularly. Customer email template of renewal and new updated also can be sent as and when required.

**8.1. Legacy System (AS-IS)**

* Lead capture: sales rep manually enters the lead generated in an excel sheet
* Lead qualification: Sales rep will call every lead and try to convert it to lead closure
* Customer interaction logging: After one to one or telephonic round with the customer the sales rep will jot down the interaction details in an excel sheet.
* Opportunity management: using the lead report excel sheet for generating sales.
* Reporting and analysis: using significant data manipulation reports are generated by the sales team and transferred to the higher level or the reporting manager.

**8.2. Proposed Recommendations (TO-BE)**

**1. Generate brand awareness**

The first step in acquiring new customers is to introduce them to your business. The Marketing team generally takes on this task using Learning about your target audience, segmenting your target audience, creating marketing campaigns that speak to the target demographics.

**2. Acquire leads**

Once there is awareness of our product in the market, the sales team or marketing team or both will start to generate lead for the sale of the product. This could be done through one-to-one contact, contact over phone, bulk mailing, bulk SMS and simply adding contact details on our website and also addition contact number to the posters of our product. CRM software can make lead generation very easier.

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Support agents can easily access the historical customer information they need to resolve a ticket quickly with the existing database.

**5. Drive upsells**

Personalised recommendations via email or SMS should be sent to the customer regularly. Customer email template of renewal and new updated also can be sent as and when required

The proposed system will help to overcome the following challenges:

* User friendly
* Provides extended functionality
* Automated data analysis
* Automated data updating
* No duplication and Less time consumption

**9. Business Requirements**

|  |  |  |  |
| --- | --- | --- | --- |
| Req ID | Req Name | Req Description | Priority |
| BR0001 | Login | User should be able to login to the application to do view data and update data | 1 |
| BR0002 | Reports | User should be able to generate desired report from the application | 4 |
| BR0003 | View Feedback | User should be able to read feedback from the customer | 2 |
| BR0004 | Give Feedback | User should be able to give feedback to the customer | 3 |
| BR0005 | Access customer details | User should be able to access the details of the customer | 6 |
| BR0006 | Add customer details | User should be able to add the details of the customer | 5 |
| BR0007 | Save the leads | User should be able to save the leads in the application | 9 |
| BR0008 | View the leads | User should be able to view the leads in the application | 8 |
| BR0009 | SMS the customer | User should be able to SMS the customer from the application | 10 |
| BR0010 | Integration with mobile | User should be able to open the application on various systems within the company and his own mobile number | 7 |

**Business Requirement Traceability Matrix**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Req ID | Req Name | Req description | Design | D1 | T1 | D2 | T2 | UAT |
| BR0001 | Login | User should be able to login to the application to do view data and update data | Yes | Yes | Yes | Yes | Yes | Yes |
| BR0002 | Reports | User should be able to generate desired report from the application | Yes | Yes | Yes | Yes | Yes | Yes |
| BR0003 | View Feedback | User should be able to read feedback from the customer | Yes | Yes | Yes | Yes | No | Pend  ing |
| BR0004 | Give Feedback | User should be able to give feedback to the customer | Yes | Yes | Yes | Yes | No | Pend  ing |
| BR0005 | Access customer details | User should be able to access the details of the customer | Yes | Yes | Yes | Yes | No | Pend  ing |
| BR0006 | Add customer details | User should be able to add the details of the customer | Yes | Yes | Yes | Yes | Yes | Yes |
| BR0007 | Save the leads | User should be able to save the leads in the application | Yes | Yes | Yes | Yes | No | Pend  ing |
| BR0008 | View the leads | User should be able to view the leads in the application | Yes | Yes | Yes | Yes | No | Pend  ing |
| BR0009 | SMS the customer | User should be able to SMS the customer from the application | Yes | Yes | Yes | Yes | Yes | Yes |
| BR0010 | Integration with mobile | User should be able to open the application on various systems within the company and his own mobile number | Yes | Yes | Yes | Yes | No | Pend  ing |

**10.Appendices**

**10.1. List of Acronyms**

* UAT: User acceptance technique
* RTM: Requirement traceability Matrix
* Rep: Representative
* CRM: Customer relationship management
* BA: Business analyst
* SME: Subject matter expert
* CEO: Chief Executive officer
* CTO: Chief Technical officer
* HR: Human resource

**10.2. Glossary of Terms**

* Lead - A potential customer who has shown interest for purchase.
* Opportunity – A lead which is likely to be closed.
* Campaign – A marketing effort for generation of lead.
* Sales pipeline – A visual representation of sales with potential revenue.

**10.3. Related Documents**

* Sales orders
* Purchase orders
* Contracts
* Pricing sheets
* Customer surveys
* Meeting minutes
* Sales team performance report.
* Customer feedback

***\*END\****