**Agile Documents**

**Document 1: Definition of Done** Definition of Done is a technique where the team agrees on , and prominently displays a list of criteria which must be met before a backlog item is considered done.

> The team has to create a well-defined, unambiguous, measurable, agreed upon and shared Definition of Done between all team members.

**Checklist of DOD -** **Axis PNR Management Tool**

A backlog item is considered done when they meet the following criteria:

**Code & Development:**

* Code is developed and implemented as per the required functionalities.
* Code built successfully without errors.
* Peer Code review is completed, and feedback is addressed accordingly.
* Code is reviewed and feedback has been shared and addressed.
* Required configuration and code changes are documented.

**Testing & Validation:**

* Unit tests are written, executed and passed.
* System Integration Testing (SIT) is done with no defects.
* Regression testing is done to ensure existing functionalities are not broken.
* Testing is performed on supported devices as per project requirements.
* All the features are tested against the Acceptance Criteria.

**User Acceptance & Business Acceptance:**

* The feature meet PNR processing requirements like Retrieving the PNR, Modifying segments, Reissues etc...,
* UI/UX designs are reviewed and approved.
* User experience and workflow align with expected Airlines handling procedure.
* QA validation is done and defects are reported, documented and addressed.
* User Acceptance Testing (UAT) is successfully performed and sign off has been taken from the product owner.

**Deployment & Documentation:**

* All the features are deployed in the test environment identical to production.
* Necessary deployment steps are documented as required.
* User and system documentation is updated like any changes in the Axis PNR Management Tool.
* Training Materials are created and updated for specialists to handle the PNRs.

**Compliance & Support:**

* All the features comply with aviation regulations and airline policies.
* Support documentation like FAQs is available for troubleshooting.
* The Axis PNR Management Tool is ready for production deployment with no high-priority issues.

**Document 2- Product Vision**

|  |  |  |  |
| --- | --- | --- | --- |
| **Scrum Project Name** | Axis PNR Management |   |   |
| **Venue** | Hyderabad |   |   |
| **Date** | **Start Time:** | **End Time:** | **Duration:** |
| **Client** | ABC Airlines |   |   |
| **Stakeholder List** |   |   |   |
|  |   |   |   |
|  |   |   |   |
| **Scrum Team** |
| **Scrum Master** |   |   |   |
| **Product Owner** |   |   |   |
| **Scrum Developer1** |   |   |   |
| **Scrum Developer2** |   |   |   |
| **Scrum Developer3** |   |   |   |
| **Scrum Developer4** |   |   |   |
| **Scrum Developer5** |   |   |   |
| **Quality Assurance (QA)** |   |   |   |
| **End users** | Airline Agents, Customer Service Team, Operation Team |   |   |

**Vision –**

What is your vision, your overarching goal for creating the product?
> The Axis PNR Management Tool enhances and extends Airline’s existing automated system for PNR modifications, Special Service Requests (SSRs), Schedule Changes, Reissues and Upgrades. While automation handles standard cases, complex scenarios still require manual intervention. Axis bridges this gap by reducing manual workload, improving accuracy and standardizing resolutions for non-automatable cases.

**Target Group:**

1. **Which market segment does the product address?**

**Airline Industry:** Airline Operations and customer service teams.

1. **Who are the target users and customers?**Primary Users are Airline agents managing PNR modifications and ticket reissues. Customer Service teams resolving passenger concerns.

**>** Secondary Users are like Supervisors & Quality Teams monitoring PNR processing. IT & Development Team maintaining and enhancing the work.

**Needs-**

1. **What problem does the Product Solve?**

Airline’s existing automated system for PNR processing fails to handle all scenarios, requiring human intervention.

1. **Which benefit does it provide?**
* **Enhanced Automation**: Handles more complex PNR modification that automation fails to process.
* **Standardized Resolutions:** Ensures consistent handling of manual cases.
* **Intelligent Case Routing:** Detects Automation failures and routes them to the right specialist with relevant data.
* **Real-Time Tracking:** Logs failures and specialist’s resolutions for continuous improvements.
* **Reduced Specialist work load:** Minimizes manual intervention, leading to faster processing times.

**Product-**

1. **What Product is it?**

A Web and Application based airline reservation tool that allows specialists to manage PNR modifications, Schedule Changes, Special Service Request, Ticket Reissues, Upgrades etc.., efficiently.

1. **What makes it desirable and special?**
* Seamless integration with airlines existing automation system.
* User friendly interface for quick adoption.
* Real time notification for automation failures and specialist intervention.
1. **Is it feasible to develop the Product?**

Yes, built upon existing Airline systems, extending functionality where automation fails.

|  |
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|  |

**Value-**

1. **How is the product going to benefit the company?**
* **Operational Efficiency:** Reduces manual work load and improves turnaround time.
* **Error Reduction:** Automated validations prevent PNR processing mistakes.
* **Customer Satisfaction:** Faster PNR modifications and seamless resolution.
* **Regulatory Compliance;** Ensures adherence to Airline’s policies and Aviation standards.
* **Scalability:** Designed to support future enhancements and integrations.
1. **What are the Business goals?**
* Improve agent efficiency and reduce PNR resolution time.
* Enhance Customer experience through faster resolution for issues.
* Provide better reporting & insights for decision-making.
1. **What is the business model?**
* Cost saving, reduces manual processing costs by improving automation efficiency.
* Future Expansion, Potential Integration with AI-driven automation for predictive issue resolution.

**Document 3: User stories**

**User Story 1: PNR Retrieval**

| **Tasks** | **Enable agents to retrieve PNRs for modifications** |
| --- | --- |
| **Priority** | High |
| **Business Value (BV)** | 800 |
| **Complexity Points (CP)** | 90 |
| **Value Statement** | As a Airlines specialist, I want to retrieve PNRs in the Axis tool so that I can access booking details securely. |
| **Acceptance Criteria** | > PNRs should be retrieved successfully within the Axis tool. > Agents must be able to view all relevant booking details post-decryption. > System should ensure data security and encryption compliance. |

**User Story 2: Modify and Update PNR Segments**

| **Tasks** | **Modify and update PNR segments when automation fails** |
| --- | --- |
| **Priority** | High |
| **Business Value (BV)** | 880 |
| **Complexity Points (CP)** | 100 |
| **Value Statement** | As a Airlines Specialist, I want to modify PNR segments so that I can adjust flight details as per customer or airline requirements. |
| **Acceptance Criteria** | > Agents can update, remove, or replace flight segments in a PNR. > The system logs who made the changes and why. > Any segment modification follows airline policies and fare rules. |

**User Story 3: Handle Special Service Requests (SSRs)**

| **Tasks** | **Handle Special Service Requests (SSRs) effectively** |
| --- | --- |
| **Priority** | Medium |
| **Business Value (BV)** | 700 |
| **Complexity Points (CP)** | 90 |
| **Value Statement** | As a Airlines specialist, I want to add, modify, or remove SSRs so that I can ensure passengers receive their requested services. |
| **Acceptance Criteria** | > Agents can select from predefined SSR codes or enter a custom request. > System validates whether the SSR request is allowed per airline policy. > SSRs should reflect in the PNR and customer records accurately. |

**User Story 4: Reissue Tickets**

| **Tasks** | **Reissue tickets with minimal manual effort** |
| --- | --- |
| **Priority** | High |
| **Business Value (BV)** | 880 |
| **Complexity Points (CP)** | 190 |
| **Value Statement** | As a Airlines specialist, I want to reissue tickets when a PNR is modified so that I can provide passengers with updated travel documents. |
| **Acceptance Criteria** | > System should calculate fare differences and reissue costs automatically. > Ticket reissues should comply with fare rules and airline policies. > Agents receive real-time confirmation of successful reissue. |

**User Story 5: Track Automation Failures**

| **Tasks** | **Track automation failures for analysis** |
| --- | --- |
| **Priority** | High |
| **Business Value (BV)** | 800 |
| **Complexity Points (CP)** | 150 |
| **Value Statement** | As a business analyst, I want to see a report on automation failures so that I can identify patterns and improve future automation success. |
| **Acceptance Criteria** | > The system logs all cases where automation fails. > Reports should show common failure reasons and trends. > Data should be exportable for analysis. |

**User Story 6: Real-Time PNR Updates**

| **Tasks** | **Provide real-time status updates on PNR modifications** |
| --- | --- |
| **Priority** | Medium |
| **Business Value (BV)** | 650 |
| **Complexity Points (CP)** | 120 |
| **Value Statement** | As a Airlines specialist, I want to get live updates on PNR changes so that I can keep passengers informed. |
| **Acceptance Criteria** | > System updates should occur in real-time when a PNR is modified. > Notifications should be sent to relevant agents/customers. > The tool should store a history of all changes. |

**User Story 7: Data Security for PNR Modifications**

| **Tasks** | **Ensure data security for PNR modifications** |
| --- | --- |
| **Priority** | High |
| **Business Value (BV)** | 880 |
| **Complexity Points (CP)** | 170 |
| **Value Statement** | As an airline security officer, I want to ensure that only authorized specialists modify PNRs so that I can prevent fraudulent changes. |
| **Acceptance Criteria** | > Role-based access control (RBAC) ensures only authorized agents make changes. > Every modification logs who made it and when. > System provides alerts on suspicious activity. |

**User Story 8: Improve PNR Search & Filtering**

| **Tasks** | **Improve PNR search and filtering** |
| --- | --- |
| **Priority** | Medium |
| **Business Value (BV)** | 650 |
| **Complexity Points (CP)** | 80 |
| **Value Statement** | As a Airlines specialist, I want to search for PNRs using multiple criteria so that I can quickly find customer bookings. |
| **Acceptance Criteria** | > Agents can search by PNR, passenger name, flight number, and date. > The system should return accurate results quickly. > Filters should be customizable based on agent needs. |

**User Story 9: Generate PNR Audit Reports**

| **Tasks** | **Generate audit reports for PNR modifications** |
| --- | --- |
| **Priority** | Medium |
| **Business Value (BV)** | 700 |
| **Complexity Points (CP)** | 100 |
| **Value Statement** | As a compliance officer, I want to generate audit logs of PNR changes so that I can ensure regulatory compliance. |
| **Acceptance Criteria** | > The system logs all PNR modifications with timestamps. > Reports can be generated for internal audits and compliance checks. > Logs should be exportable in multiple formats (CSV, PDF, etc.). |

**User Story 10: Multi-User Access & Role-Based Permissions**

| **Tasks** | **Provide multi-user access with role-based permissions** |
| --- | --- |
| **Priority** | High |
| **Business Value (BV)** | 800 |
| **Complexity Points (CP)** | 160 |
| **Value Statement** | As an airline system administrator, I want to assign different access levels to users so that I can control who can modify PNRs. |
| **Acceptance Criteria** | > Admins can assign roles like Agent, Supervisor, Auditor, and Admin. > Permissions should restrict who can edit, view, or approve PNR modifications. > System enforces role-based security policies. |

**Document 4: Agile PO Experience**

**1. Product Owner Responsibilities in the Axis PNR Management Tool Project**

1. **Market Analysis:**
* Conducted and analysis of automation failures in PNR handling.
* Identified the need of human intervention to resolve PNR related issues.
* Researched existing PNR management solutions to ensure differentiation.
1. **Enterprise Analysis:**
* Assessed the opportunity to enhance the existing PNR automation by integrating manual intervention where required.
* Validated the business case for the Axis PNR management tool by analysing the existing inefficiencies.
1. **Product Vision and Roadmap:**
* Defined the vision to provide seamless, efficient and user-friendly tool for managing PNR modification where automation fails.
* Created a product roadmap with planned iterations and milestones.
1. **Managing Product Features;**
* Identified core features, which include:
* Retrieving the PNR and modification
* Handling Schedule Changes, Special Service Requests (SSR), Reissues, Upgrades etc...
* Prioritized features based on the business value and criticality.
1. **Managing Product Backlog:**
* Maintained and refined the product backlog
* Prioritized the user stories based on stakeholder needs and project goals.
* Planned epics based on key functionalities required for smooth PNR handling.
1. **Managing Overall Iteration Progress:**
* Reviewed spring progress and adjusted priorities as needed.
* Conducted Sprint Retrospective meeting with Business Analysts and Development team to optimize future iterations.
* Ensured all the features are aligned with business goals and agent workflow.

**2. Scrum Ceremonies & Meetings Conducted**

**1. Sprint Planning Meeting:** Defined sprint goals, selected user stories and estimated efforts.

- Reviewed high-priority backlog items and selected user stories for the sprint.
- Estimated effort using story points and complexity analysis.
- Ensured that tasks aligned with business objectives and technical feasibility.

**2. Daily Scrum Meeting:** Ensured blockers were addressed and team members were aligned on progress.

- Conducted 15-minute stand-ups to discuss:
- What was accomplished yesterday?
- What will be worked on today?
- Any impediments?
- Provided quick resolutions for PNR-related automation challenges.

**3. Sprint Review Meeting:**

 Demonstrated the completed functionalities to the stakeholders for feedback.

- Showcased completed user stories to stakeholders.
- Gathered feedback from SMEs and airline teams.
- Adjusted backlog priorities based on real-world agent usage feedback.

**4. Sprint Retrospective Meeting:**

Identified what went well, what did not go well, and areas of improvement.

- Conducted team discussions on:
- What worked well?
- What challenges did we face?
- How can we improve in the next sprint?
- Improved automation failure tracking based on lessons learned.

**5. Backlog Refinement Meeting:**

Reviewed and reprioritized backlog items based on feedback and sprint outcomes.

- Ensured that backlog items remained relevant, detailed, and estimated correctly.
- Added new stories based on real-time airline operational needs.
- Refined acceptance criteria to ensure clarity for developers and testers.

**3. User Story Creation & Key Elements**
User stories define the functional requirements of the Axis PNR Management Tool in a structured format. Each story ensures that the development aligns with the business needs, agent workflows, and automation enhancements.

**1. Story number:** A unique identifier for tracking the user story.
 Example: DL-001

**2. Tasks:** The specific activities required to complete the user story.
 Example: Enable agents to modify PNR manually

**3. Priority:** Defines the urgency of the user story (High, Medium, Low) based on business needs.
 Example: High

**4. Value Statement:** A structured statement following the format.
 As a [User role]
 I want to [action]
 So that I can [benefit]

 Example: As a Airline Specialist
 I want to retrieve the PNRs
 So that I can access the PNR details and modify

**5. Business Value (BV):** Business Value (BV) represents the importance and impact of a user story on the overall product and business goals. It helps to prioritize the work based on how much value it delivers to the stakeholders, users and operations.

A numeric score (1-10) representing the business impact.
 Example: 9 (High Business Value).

**6. Complexity Points:** Complexity Points (CP) estimate the level of effort, technical difficulty and risk associated with implementing a user story. These help teams in sprint planning and workload distribution.

A numeric Score (1-10) typically representing the technical effort required.
 Example: 5(Moderate Complexity)

**7. Acceptance Criteria:** A checklist defining when a story is considered done. Ensures clear expectations for development and testing.
Example in Axis Tool: The System must retrieve the PNR securely

 The specialists should see all the relevant booking details

 The decryption process should follow airlines security policies.

**4. Role of Product Owner in Axis PNR Management Tool**

* Liaison between Business and Development team to ensure clear communication between Airlines, stakeholders, quality teams and developers.
* Requirements Refinements, translated business needs in to actionable user stories.
* Decision Making, prioritized backlog items based on ROI, feasibility and impact.
* Stakeholder Collaboration, engaged with agents, SMEs and airline operations team to refine functionalities.
* Continuous Improvement, used sprint feedback to optimize future releases.

**Document 5: Product and sprint backlog and product and sprint burndown charts**

**Product Backlog:** A product backlog is a prioritized list of all features, enhancements, bug fixes and tasks need to improve a product. It serves as the single source of work for the development team.

> The Product Backlog represents all desired functionality for the Axis PNR Management Tool. It is continuously refined and reprioritized by the Product Owner.

**Product Backlog:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **User Story ID** | **User Story** | **Tasks** | **Priority** | **Business Value (BV)** | **Complexity Points (CP)** | **Sprint** |
| US-001 | As a specialist, I want to retrieve PNRs using Axis so I can access booking details | Build retrieval logic, integrate with backend, UI layout | High | 10 | 5 | Sprint 1 |
| US-002 | As a specialist, I want to edit flight segments so I can reflect schedule changes | UI for edit, validate fields, update logic | High | 9 | 8 | Sprint 1 |
| US-003 | As an agent, I want to view and update SSRs to ensure special requests are honored | SSR view, edit flow, error handling | High | 8 | 8 | Sprint 1 & 2 |
| US-004 | As an agent, I want to view customer contact and ticket info in one place | UI layout, ticket data fetch, display integration | Medium | 7 | 5 | Sprint 2 |
| US-005 | As an agent, I want the system to automatically reissue tickets after changes | Auto reissue logic, fare validation, ticketing integration | High | 10 | 13 | Sprint 3 |
| US-006 | As an agent, I want to assign or remove seats to assist customers as per their needs | Seat logic, validation rules, UI feedback | Medium | 6 | 5 | Sprint 2 |
| US-007 | As an SME, I want to view PNR change history to audit agent actions | History tracking, timestamp logic, read-only view | Medium | 6 | 3 | Sprint 3 |
| US-008 | As a supervisor, I want a quality audit dashboard to monitor agent performance | Dashboard design, data pipeline, metrics config | Low | 5 | 8 | Sprint 4 |

**Sprint Backlog:** Sprint backlog is list of tasks, user stories, and work items from the product backlog that the development team commits to completing during a Sprint. It represents the scope of work for the Sprint and provides a clear roadmap for achieving the sprint goal.

>

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **User Story ID** | **User Story** | **Tasks** | **Owner** | **Status** | **Estimated Effort** |
| US-001 | As an agent, I want to decrypt PNRs using Axis so I can access booking details | - Build decryption logic | Rahul | In Progress | 5 |
| - Integrate with backend |
| - Design UI layout |
| US-002 | As an agent, I want to edit flight segments so I can reflect schedule changes | - Create edit segment UI | Priya | To Do | 8 |
| - Validate input data |
| - Update backend logic |
| US-003 | As an agent, I want to view and update SSRs to ensure special requests are honored | - SSR view component | Arjun | To Do | 8 |
| - Edit flow |
| - Error handling logic |

**Product Burndown: :** Product burndown tracks the progress for the complete or overall project. This shows the total remaining work for the entire product backlog.
> Helps to predict when the project will be completed
> This will be used for long-term project.

**Sprint Burndown:** Sprint burndown tracks progress within a single sprint. Shows the remaining work for the current sprint.
> Helps team see if they are on track to complete the sprint goals.
> This will be updated daily during the sprint meeting.

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**Document 6: Sprint meetings**

**Meeting Type 1: Sprint Planning Meeting**

* **Date:** 25 March 2025
* **Time:** 11:00 AM – 12:30 PM
* **Location:** MS Teams
* **Prepared By:** Sharadha (Product Owner)
* **Attendees:** Product Owner: Sharadha

 Scrum Master: Prabhakar

 Developers: Priyanka, Naveen, Vaibhav

 QA: Anil Kumar

**Agenda Topics**

|  |  |  |
| --- | --- | --- |
| **Topic** | **Presenter** | **Time Allotted** |
| Sprint Goals Overview | Sharadha | 10 mins |
| Review Product Backlog | Sharadha | 15 mins |
| Effort Estimation and Task Breakdown | Developers | 30 mins |
| Finalizing Sprint Backlog | Scrum Master | 20 mins |
| Clarifying Doubts and Dependencies | Team | 15 mins |

**Other Information**

|  |  |
| --- | --- |
| Observers |  |
| Resources | Product Backlog Document, Jira Board, Reference Documents |
| Special Notes | Coordinate with QA to align on test cases for each story |

**Meeting Type 2: Sprint Review Meeting**

**Date:** 7 Apil 2025

**Time:** 3:00 PM – 5:00 PM

**Location:** MS Teams Meeting

**Prepared By:** Prabhakar (Scrum Master)

**Attendees:**  Scrum Team, Stakeholders, Operations Team and Quality Team

|  |  |  |  |
| --- | --- | --- | --- |
| **Sprint Status** | **Things to demo** | **Quick Updates** | **What’s next** |
| Completed US-001, US-002 | PNR Retrieval Flow | Special Service Request (SSR) API expected by next sprint | Begin Sprint 2: SSR completion, Customer information UI, seat Allocation |
| IN Progress US-003 | Segment Edit functionality | User Interface (UI) enhancement feedback received from stakeholders |  |
|  | Partial SSR interface |  |  |

**Meeting Type 3: Sprint retrospective meeting**

**Date:** 8 April 2025

**Time:** 11:00 AM – 12:00 PM

**Location:** MS Teams Meeting

**Prepared By:** Prabhakar (Scrum Master)

**Attendees:** Scrum Team

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Agenda** | **What Went Well** | **What didn’t go well** | **Questions** | **Reference** |
| Reflect on Sprint 1 performance | Strong Collaboration between Development Team and QA Team | SSR API delay impacted scope | Can we get earlier visibility into third-party delays | Sprint 1 Review Notes |
| Identify improvements | User Story breakdown was effective | No buffer for integration issues |  | Jira Sprint Board |
|  | Timely delivery of core features |  |  |  |

**Meeting Type 4: Daily Stand-up meeting**

|  |  |  |
| --- | --- | --- |
| **Question** | **Name / Role** | **Week “X” (from dd-mm-yyyy to dd-mm-yyyy)** |
|  |  | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** | **Saturday** | **Sunday** |
| **What did you do yesterday?** | **Developer 1 (Priyanka)** | Reviewed UI layout | Worked on Segment from | Bug fixes | Integration testing | finalized US-002 | Week Off | Week Off |
| **Developer 2 (Naveen)** | Set up decryption | backend integration | API testing | Debugging | Deployed US-001 | Week Off | Week Off |
| **Developer 3 (Vaibhav)** | SSR wireframes | SSR logic design | API mapping | SSR testing | Partial demo | Week Off | Week Off |
| **What will you do today?** | **Developer 1 (Priyanka)** | Segment UI | SSR UI | QA sync | Segment bug fix | Sprint review preparation | Week Off | Week Off |
| **Developer 2 (Naveen)** | PNR Logic | SSR data sync | SSR QA Support | Retrospective Notes | Sprint Documents | Week Off | Week Off |
| **Developer 3 (Vaibhav)** | SSR Completion | Stakeholder feedback | Fix API issues | UI polish | Review with Product Owner | Week Off | Week Off |
| **What (if any) is blocking your progress?** | **Developer 1 (Priyanka)** | N/A | N/A | SSR delay | N/A | N/A | Week Off | Week Off |
| **Developer 2 (Naveen)** | N/A | SSR API timing | Waiting on QA | N/A | N/A | Week Off | Week Off |
| **Developer 3 (Vaibhav)** | SSR API delay | Stakeholder availability | N/A | N/A | N/A | Week Off | Week Off |