**Work Breakdown Structure (WBS)**

**RAM-IT: ITRO’s ChatBot & Ticketing System**

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# Introduction

The Work Breakdown Structure shows the Summary Tasks and Work Packages that are needed to be done through the whole process of the project RAM-IT: ITRO’s ChatBot & Ticketing System.

# Outline View

1. RAM-IT: ITRO’s ChatBot & Ticketing System
   1. Planning (MSYADD1)
      1. Design Thinking
      2. Paper Documentation (1)
         1. Executive Summary
         2. Chapter 1: Project Context
         3. Chapter 1: Statement of the Problem
         4. Chapter 1: Objectives
         5. Chapter 1: Significance of the Project
         6. Chapter 1: Scope & Limitation
         7. Chapter 2: Review of Related Literature
         8. Chapter 3: Technical Background: Current System
         9. Chapter 3: Technical Background: Proposed System
         10. Appendix A: Project Vision
         11. Appendix B: Roles & Responsibilities
         12. Appendix C: Product Roadmap
         13. Appendix D: Teams Meeting
   2. Analysis & Design (MSYADD1 & MCSPROJ)
      1. Paper Documentation (2)
         1. Chapter 4: User Stories with Acceptance Criteria
         2. Chapter 4: Product Backlog
         3. Chapter 4: Event Table
         4. Chapter 4: Use Case Diagram
         5. Chapter 4: Use Case Full Description
         6. Chapter 4: Gap Analysis
         7. Chapter 4: Context Diagram
         8. Chapter 4: Data Flow Diagrams
         9. Chapter 4: Entity-Relationship Diagram
         10. Chapter 4: Activity Diagram
         11. Chapter 4: Object Diagram
         12. Chapter 4: Class Diagram
         13. Chapter 4: Sequence Diagram
         14. Chapter 4: Package Diagram
         15. Chapter 4: Component Diagram
         16. Chapter 4: Deployment Diagram
         17. Chapter 4: Machine State Diagram
         18. Chapter 5: Release Plan
         19. Chapter 5: Mock-Up
         20. Chapter 5: Use Classes & Characteristics
      2. Gantt Chart
      3. Project Charter
      4. Statement of Work
      5. Vision & Scope
      6. Work Breakdown Structure
      7. Change Management Plan
      8. Quality Plan
      9. Contingency Plan
   3. Development (MCSPROJ)
      1. Prototype
         1. Log-In Feature
         2. ChatBot Feature
         3. Ticket Feature
         4. Notification Feature
         5. Data Report Feature
         6. Filter Feature
         7. Ticket History Feature
         8. Chat Feature
         9. Prototype UI
      2. Test Cases
   4. Post-Development (PROJMAN & SOFTDEV)
      1. Business Case
      2. Project Charter
      3. Stakeholder Management Plan
      4. Stakeholder Analysis
      5. Scope Management Plan
      6. Cost Management Plan
      7. Schedule Management Plan
      8. Get Documents Signed
      9. Train the ITRO on how to use the System
      10. Install System
      11. Deploy System

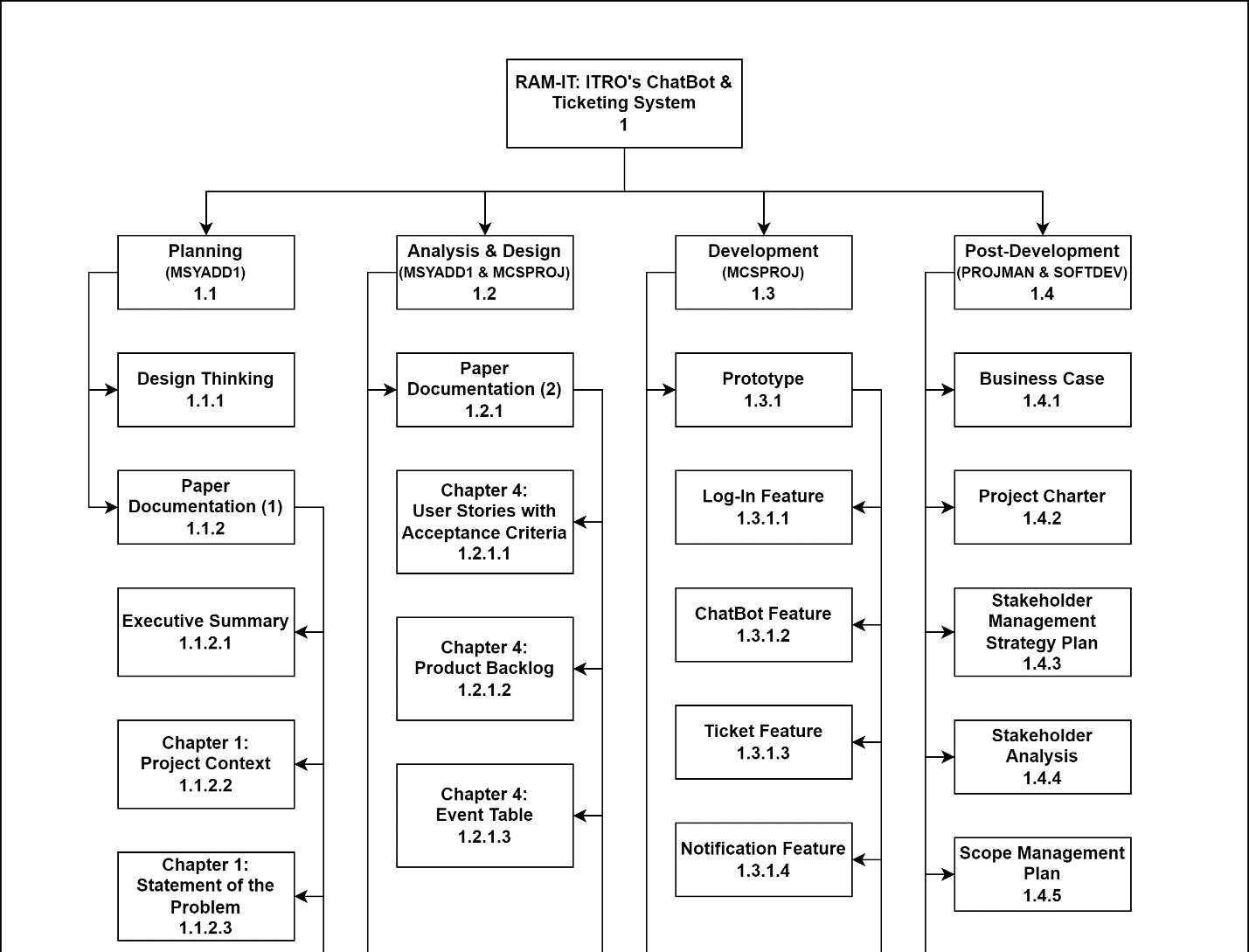
# Hierarchical Structure

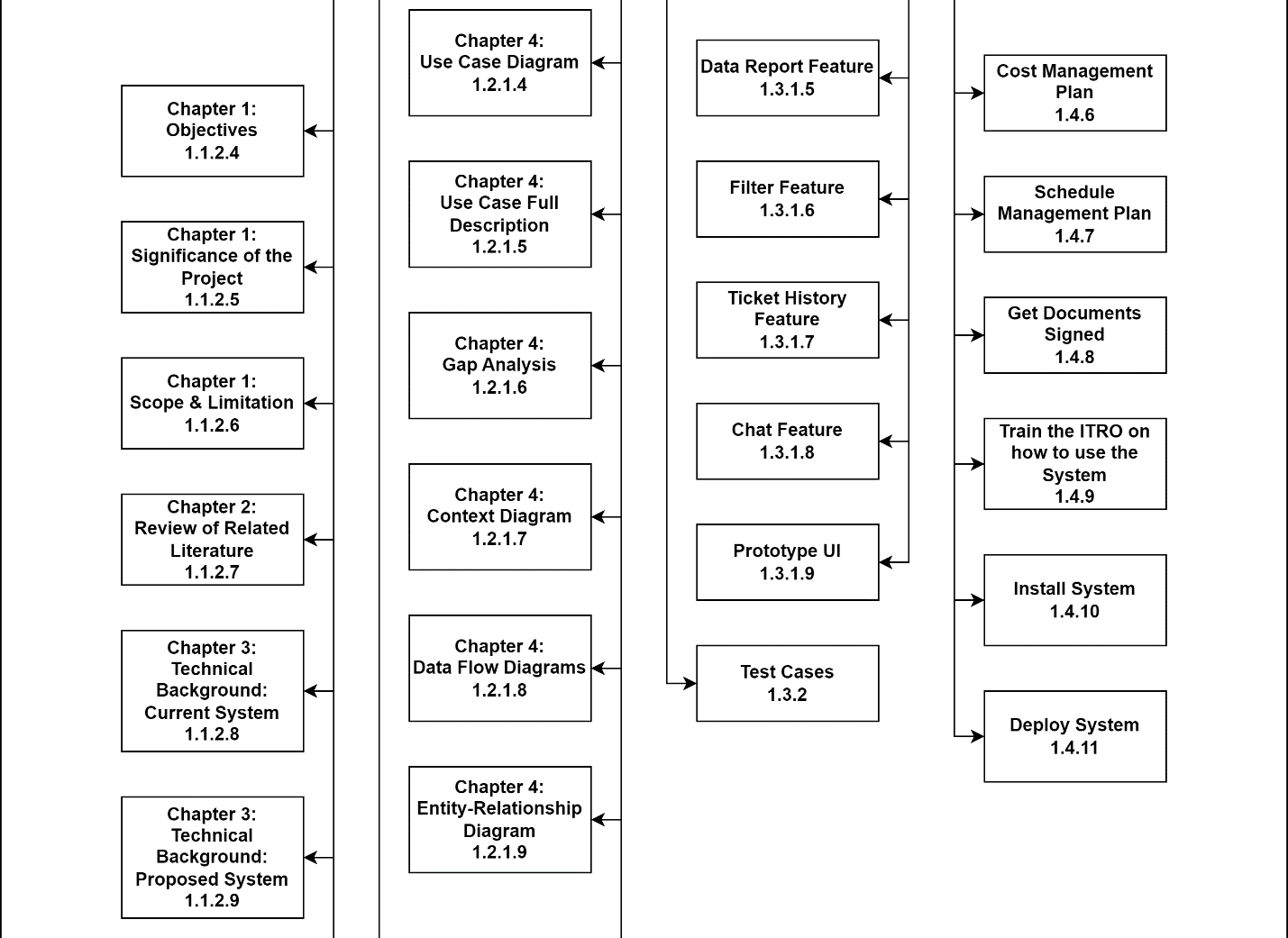
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| --- | --- | --- |
| Level | WBS Code | Element Name |
| 1 | 1 | RAM-IT: ITRO’s ChatBot & Ticketing System |
| 2 | 1.1 | Planning (MSYADD1) |
| 3 | 1.1.1 | Design Thinking |
| 3 | 1.1.2 | Paper Documentation (1) |
| 4 | 1.1.2.1 | Executive Summary |
| 4 | 1.1.2.2 | Chapter 1: Project Context |
| 4 | 1.1.2.3 | Chapter 1: Statement of the Problem |
| 4 | 1.1.2.4 | Chapter 1: Objectives |
| 4 | 1.1.2.5 | Chapter 1: Significance of the Project |
| 4 | 1.1.2.6 | Chapter 1: Scope & Limitation |
| 4 | 1.1.2.7 | Chapter 2: Review of Related Literature |
| 4 | 1.1.2.8 | Chapter 3: Technical Background: Current System |
| 4 | 1.1.2.9 | Chapter 3: Technical Background: Proposed System |
| 4 | 1.1.2.10 | Appendix A: Project Vision |
| 4 | 1.1.2.11 | Appendix B: Roles & Responsibilities |
| 4 | 1.1.2.12 | Appendix C: Product Roadmap |
| 4 | 1.1.2.13 | Appendix D: Teams Meeting |
| 2 | 1.2 | Analysis & Design (MSYADD1 & MCSPROJ) |
| 3 | 1.2.1 | Paper Documentation (2) |
| 4 | 1.2.1.1 | Chapter 4: User Stories with Acceptance Criteria |
| 4 | 1.2.1.2 | Chapter 4: Product Backlog |
| 4 | 1.2.1.3 | Chapter 4: Event Table |
| 4 | 1.2.1.4 | Chapter 4: Use Case Diagram |
| 4 | 1.2.1.5 | Chapter 4: Use Case Full Description |
| 4 | 1.2.1.6 | Chapter 4: Gap Analysis |
| 4 | 1.2.1.7 | Chapter 4: Context Diagram |
| 4 | 1.2.1.8 | Chapter 4: Data Flow Diagrams |
| 4 | 1.2.1.9 | Chapter 4: Entity-Relationship Diagram |
| 4 | 1.2.1.10 | Chapter 4: Activity Diagram |
| 4 | 1.2.1.11 | Chapter 4: Object Diagram |
| 4 | 1.2.1.12 | Chapter 4: Class Diagram |
| 4 | 1.2.1.13 | Chapter 4: Sequence Diagram |
| 4 | 1.2.1.14 | Chapter 4: Package Diagram |
| 4 | 1.2.1.15 | Chapter 4: Component Diagram |
| 4 | 1.2.1.16 | Chapter 4: Deployment Diagram |
| 4 | 1.2.1.17 | Chapter 4: Machine State Diagram |
| 4 | 1.2.1.18 | Chapter 5: Release Plan |
| 4 | 1.2.1.19 | Chapter 5: Mock-Up |
| 4 | 1.2.1.20 | Chapter 5: Use Classes & Characteristics |
| 3 | 1.2.2 | Gantt Chart |
| 3 | 1.2.3 | Project Charter |
| 3 | 1.2.4 | Statement of Work |
| 3 | 1.2.5 | Vision & Scope |
| 3 | 1.2.6 | Work Breakdown Structure |
| 3 | 1.2.7 | Change Management Plan |
| 3 | 1.2.8 | Quality Plan |
| 3 | 1.2.9 | Contingency Plan |
| 2 | 1.3 | Development (MCSPROJ) |
| 3 | 1.3.1 | Prototype |
| 4 | 1.3.1.1 | Log-In Feature |
| 4 | 1.3.1.2 | ChatBot Feature |
| 4 | 1.3.1.3 | Ticket Feature |
| 4 | 1.3.1.4 | Notification Feature |
| 4 | 1.3.1.5 | Data Report Feature |
| 4 | 1.3.1.6 | Filter Feature |
| 4 | 1.3.1.7 | Ticket History Feature |
| 4 | 1.3.1.8 | Chat Feature |
| 4 | 1.3.1.9 | Prototype UI |
| 3 | 1.3.2 | Test Cases |
| 2 | 1.4 | Post-Development (PROJMAN & SOFTDEV) |
| 3 | 1.4.1 | Business Case |
| 3 | 1.4.2 | Project Charter |
| 3 | 1.4.3 | Stakeholder Management Plan |
| 3 | 1.4.4 | Stakeholder Analysis |
| 3 | 1.4.5 | Scope Management Plan |
| 3 | 1.4.6 | Cost Management Plan |
| 3 | 1.4.7 | Schedule Management Plan |
| 3 | 1.4.8 | Get Documents Signed |
| 3 | 1.4.9 | Train the ITRO on how to use the System |
| 3 | 1.4.10 | Install System |
| 3 | 1.4.11 | Deploy System |

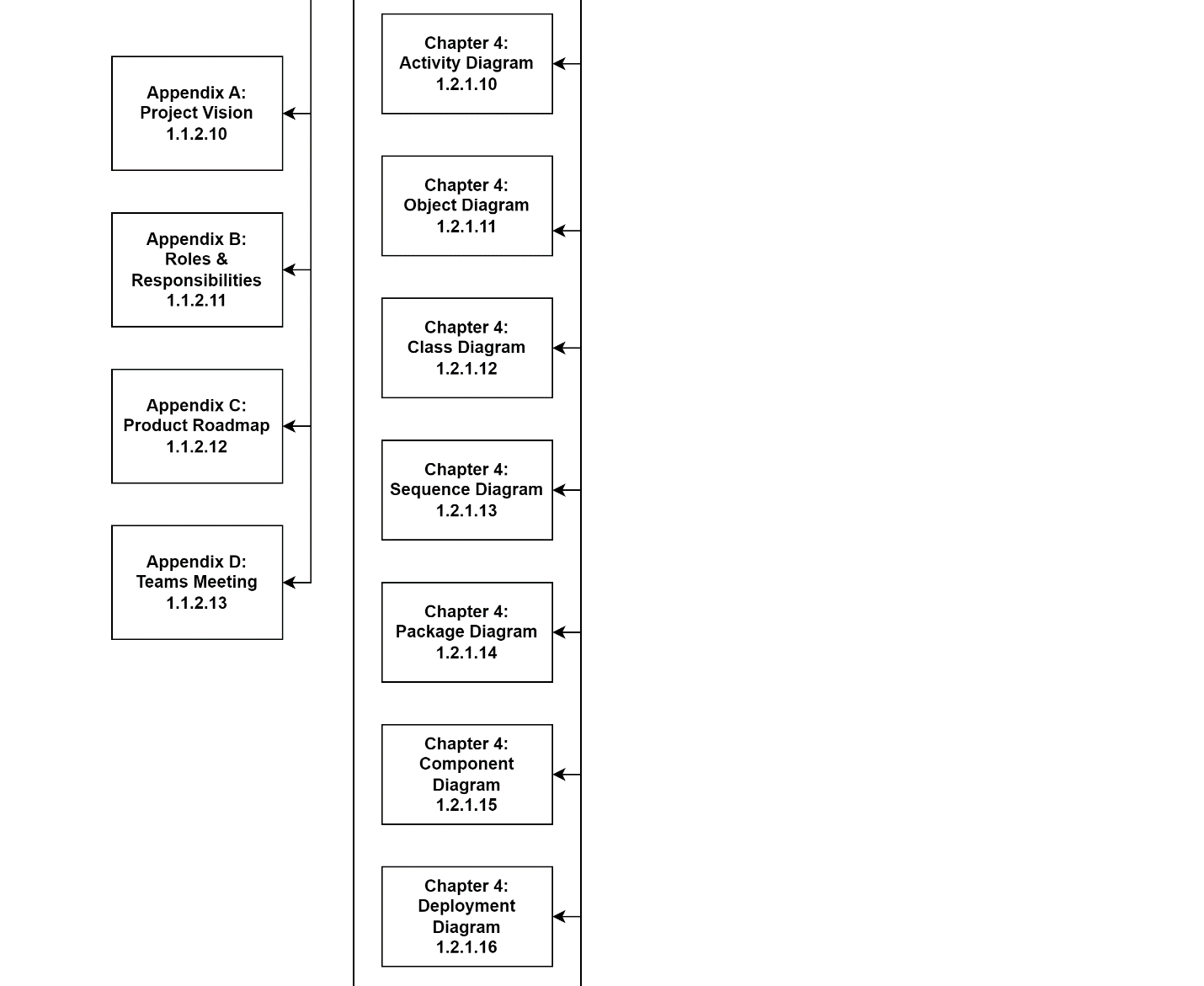
# Tabular View

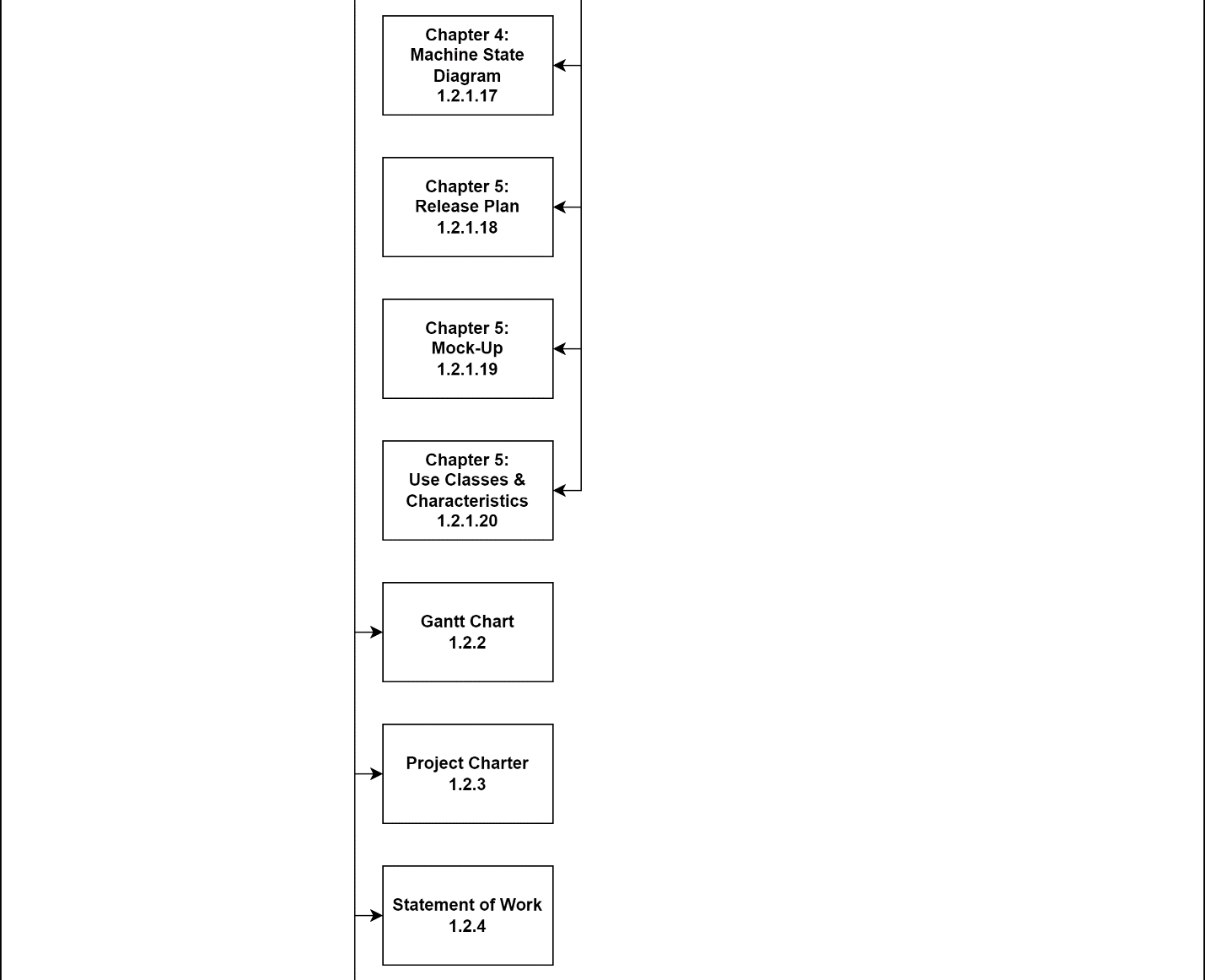
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| --- | --- | --- | --- |
| Level 1 | Level 2 | Level 3 | Level 4 |
| 1 RAM-IT: ITRO’s ChatBot & Ticketing System | 1.1 Planning (MSYADD1) | 1.1.1 Design Thinking |  |
| 1.1.2 Paper Documentation (1) | 1.1.2.1 Executive Summary  1.1.2.2 Chapter 1: Project Context  1.1.2.3 Chapter 1: Statement of the Problem  1.1.2.4 Chapter 1: Objectives  1.1.2.5 Chapter 1: Significance of the Project  1.1.2.6 Chapter 1: Scope & Limitation  1.1.2.7 Chapter 2: Review of Related Literature  1.1.2.8 Chapter 3: Technical Background: Current System  1.1.2.9 Chapter 3: Technical Background: Proposed System  1.1.2.10 Appendix A: Project Vision  1.1.2.11 Appendix B: Roles & Responsibilities  1.1.2.12 Appendix C: Product Roadmap  1.1.2.13 Appendix D: Teams Meeting |
| 1.2 Analysis & Design (MSYADD1 & MCSPROJ) | 1.2.1 Paper Documentation (2) | 1.2.1.1 Chapter 4: User Stories with Acceptance Criteria  1.2.1.2 Chapter 4: Product Backlog  1.2.1.3 Chapter 4: Event Table  1.2.1.4 Chapter 4: Use Case Diagram  1.2.1.5 Chapter 4: Use Case Full Description  1.2.1.6 Chapter 4: Gap Analysis  1.2.1.7 Chapter 4: Context Diagram  1.2.1.8 Chapter 4: Data Flow Diagrams  1.2.1.9 Chapter 4: Entity-Relationship Diagram  1.2.1.10 Chapter 4: Activity Diagram  1.2.1.11 Chapter 4: Object Diagram  1.2.1.12 Chapter 4: Class Diagram  1.2.1.13 Chapter 4: Sequence Diagram  1.2.1.14 Chapter 4: Package Diagram  1.2.1.15 Chapter 4: Component Diagram  1.2.1.16 Chapter 4: Deployment Diagram  1.2.1.17 Chapter 4: Machine State Diagram  1.2.1.18 Chapter 5: Release Plan  1.2.1.19 Chapter 5: Mock-Up  1.2.1.20 Chapter 5: Use Classes & Characteristics |
| 1.2.2 Gantt Chart |  |
| 1.2.3 Project Charter |  |
| 1.2.4 Statement of Work |  |
| 1.2.5 Vision & Scope |  |
| 1.2.6 Work Breakdown Structure |  |
| 1.2.7 Change Management Plan |  |
| 1.2.8 Quality Plan |  |
| 1.2.9 Contingency Plan |  |
| 1.3 Development (MCSPROJ) | 1.3.1 Prototype | 1.3.1.1 Log-In Feature  1.3.1.2 ChatBot Feature  1.3.1.3 Ticket Feature  1.3.1.4 Notification Feature  1.3.1.5 Data Report Feature  1.3.1.6 Filter Feature  1.3.1.7 Ticket History Feature  1.3.1.8 Chat Feature  1.3.1.9 Prototype UI |
| 1.3.2 Test Cases |  |
| 1.4 Post-Development (PROJMAN & SOFTDEV) | 1.4.1 Business Case |  |
| 1.4.2 Project Charter |
| 1.4.3 Stakeholder Management Plan |
| 1.4.4 Stakeholder Analysis |
| 1.4.5 Scope Management Plan |
| 1.4.6 Cost Management Plan |
| 1.4.7 Schedule Management Plan |
| 1.4.8 Get Documents Signed |
| 1.4.9 Train the ITRO on how to use the System |
| 1.4.10 Install System |
| 1.4.11 Deploy System |

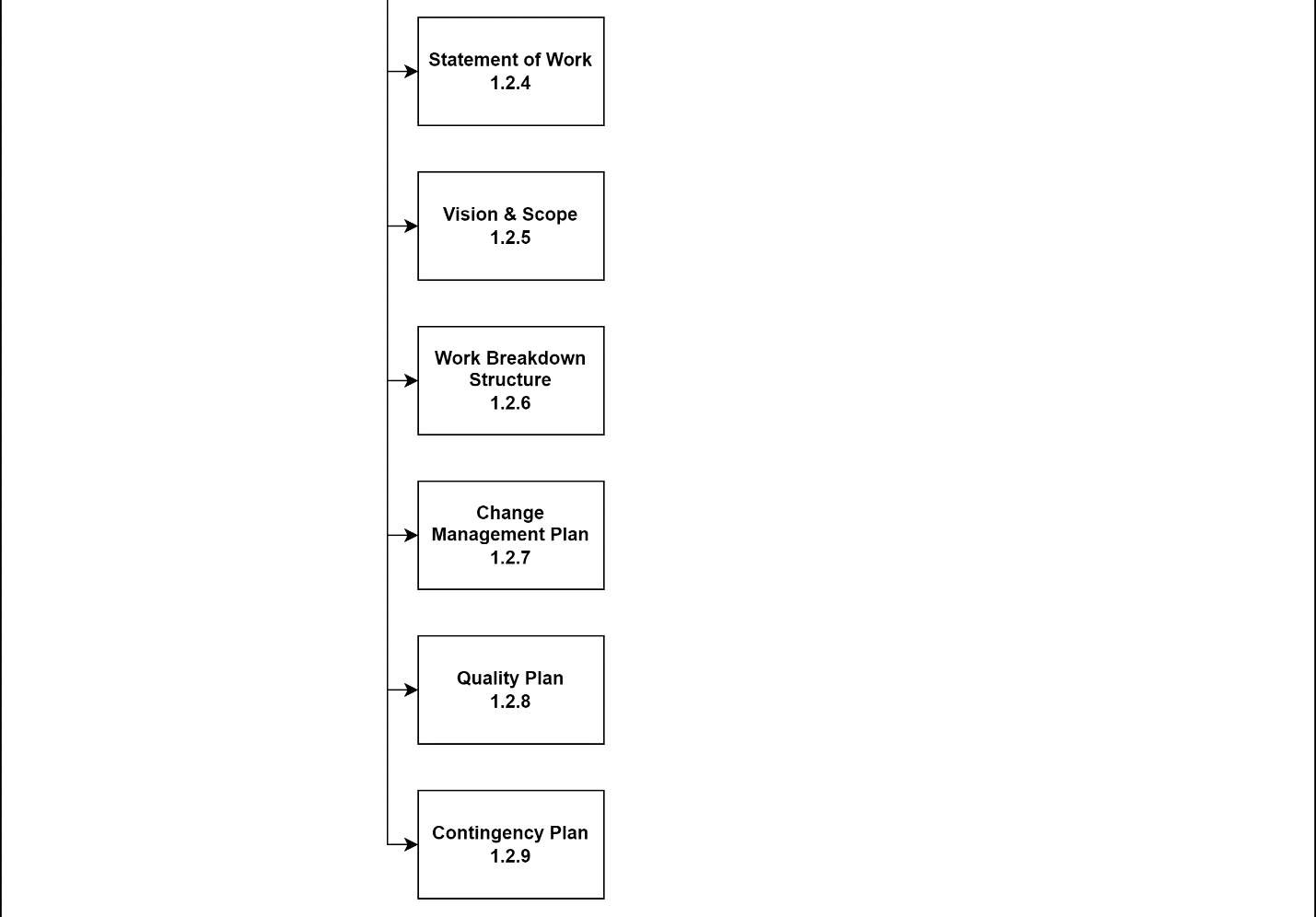
# Tree Structure View











# WBS Dictionary

| Level | WBS Code | Element Name | Definition |
| --- | --- | --- | --- |
| 1 | 1 | RAM-IT: ITRO’s ChatBot & Ticketing System | The project name for the chatbot and ticketing system being made for ITRO. |
| 2 | 1.1 | Planning (MSYADD1) | The planning stage of the project. |
| 3 | 1.1.1 | Design Thinking | The research and brainstorming session of the proponents along with the stakeholders and project sponsor. |
| 3 | 1.1.2 | Paper Documentation (1) | The paper that contains all of the necessary information needed for the project. |
| 4 | 1.1.2.1 | Executive Summary | The summary of the whole project. |
| 4 | 1.1.2.2 | Chapter 1: Project Context | The part where the proponents talk about what the project background and purpose is. |
| 4 | 1.1.2.3 | Chapter 1: Statement of the Problem | Identifying the problem. |
| 4 | 1.1.2.4 | Chapter 1: Objectives | The goals and objectives of the project. |
| 4 | 1.1.2.5 | Chapter 1: Significance of the Project | The stakeholders of the project. |
| 4 | 1.1.2.6 | Chapter 1: Scope & Limitation | The scope and limitation of the project. |
| 4 | 1.1.2.7 | Chapter 2: Review of Related Literature | The similar projects and researches to the project being built. |
| 4 | 1.1.2.8 | Chapter 3: Technical Background: Current System | The background specifically for the current system being used by the ITRO. |
| 4 | 1.1.2.9 | Chapter 3: Technical Background: Proposed System | The background specifically for the new system being proposed to the ITRO. |
| 4 | 1.1.2.10 | Appendix A: Project Vision | The vision of the project. |
| 4 | 1.1.2.11 | Appendix B: Roles & Responsibilities | The delegated tasks for each proponent. Also where to see which proponent handles what job. |
| 4 | 1.1.2.12 | Appendix C: Product Roadmap | The product roadmap of the project where the milestones are. |
| 4 | 1.1.2.13 | Appendix D: Teams Meeting | The compilation of the minutes of the meeting throughout the project. |
| 2 | 1.2 | Analysis & Design (MSYADD1 & MCSPROJ) | The analyzation and designing of the proposed new system which is RAM-IT. |
| 3 | 1.2.1 | Paper Documentation (2) | The paper that contains all of the necessary information needed for the project. This time with diagrams and tables. |
| 4 | 1.2.1.1 | Chapter 4: User Stories with Acceptance Criteria | This is where the proponents can see if they successfully completed an user story. |
| 4 | 1.2.1.2 | Chapter 4: Product Backlog | The backlog of the product. |
| 4 | 1.2.1.3 | Chapter 4: Event Table | This table contains the nine use cases for the project. |
| 4 | 1.2.1.4 | Chapter 4: Use Case Diagram | This diagram contains the connection between thee users and the use cases. |
| 4 | 1.2.1.5 | Chapter 4: Use Case Full Description | The full description of each of the nine use cases. |
| 4 | 1.2.1.6 | Chapter 4: Gap Analysis | The comparison between the old current system and the new proposed system. |
| 4 | 1.2.1.7 | Chapter 4: Context Diagram | This diagram shows the connection between the users and the system. It also contains how they are connected. |
| 4 | 1.2.1.8 | Chapter 4: Data Flow Diagrams | This diagram contains the flow of the users and the use cases and the data that goes through the whole system process. |
| 4 | 1.2.1.9 | Chapter 4: Entity-Relationship Diagram | This diagram shows the relationship between the entities in the diagram. |
| 4 | 1.2.1.10 | Chapter 4: Activity Diagram | This diagram shows the flow of activities that can be done by each users. |
| 4 | 1.2.1.11 | Chapter 4: Object Diagram | This diagram shows the objects of the system and how they connect to one another. |
| 4 | 1.2.1.12 | Chapter 4: Class Diagram | This diagram shows the classes of the project. |
| 4 | 1.2.1.13 | Chapter 4: Sequence Diagram | This diagram shows the sequences of the project. |
| 4 | 1.2.1.14 | Chapter 4: Package Diagram | This diagram shows the packages of the project. |
| 4 | 1.2.1.15 | Chapter 4: Component Diagram | This diagram shows the more technical view of the project. |
| 4 | 1.2.1.16 | Chapter 4: Deployment Diagram | This diagram shows where the project will be deployed. |
| 4 | 1.2.1.17 | Chapter 4: Machine State Diagram | This diagram shows the processes of the system with their state. |
| 4 | 1.2.1.18 | Chapter 5: Release Plan | This shows what will be released on what day. |
| 4 | 1.2.1.19 | Chapter 5: Mock-Up | This shows the prototype UI basis. |
| 4 | 1.2.1.20 | Chapter 5: Use Classes & Characteristics | This shows the users and how they are related to the project. It also shows what they can do in the new system. |
| 3 | 1.2.2 | Gantt Chart | Similar to WBS, it shows the schedule of work packages and which resources should be responsible for them. |
| 3 | 1.2.3 | Project Charter | This shows the charter of the project. Also contains the identity of the project manager. |
| 3 | 1.2.4 | Statement of Work | The document for the statement of the work. |
| 3 | 1.2.5 | Vision & Scope | The specific document for the vision and scope of the project. |
| 3 | 1.2.6 | Work Breakdown Structure | The WBS is where the summary tasks and work packages are identified. |
| 3 | 1.2.7 | Change Management Plan | The document if there will be any changes in the project while it is ongoing. |
| 3 | 1.2.8 | Quality Plan | The document to ensure quality for the project system. |
| 3 | 1.2.9 | Contingency Plan | The document that ensures the project will bounce back from contingencies. |
| 2 | 1.3 | Development (MCSPROJ) | The development phase of the project. |
| 3 | 1.3.1 | Prototype | The actual proposed system being made. |
| 4 | 1.3.1.1 | Log-In Feature | The Log-In feature of the project. |
| 4 | 1.3.1.2 | ChatBot Feature | The ChatBot feature of the project. |
| 4 | 1.3.1.3 | Ticket Feature | The Ticket feature of the project. |
| 4 | 1.3.1.4 | Notification Feature | The Notification feature of the project. |
| 4 | 1.3.1.5 | Data Report Feature | The Data Report feature of the project where data can be generated into a report. |
| 4 | 1.3.1.6 | Filter Feature | The Filter feature of the project where tickets can be filtered in different categories. |
| 4 | 1.3.1.7 | Ticket History Feature | The ticket archiving feature of the project. |
| 4 | 1.3.1.8 | Chat Feature | The feature where the APC Community Member and assigned IT Specialist can communicate within a ticket. |
| 4 | 1.3.1.9 | Prototype UI | The front end of the prototype. |
| 3 | 1.3.2 | Test Cases | The testing phase of the project for the prototype. |
| 2 | 1.4 | Post-Development (PROJMAN & SOFTDEV) | The post-development phase of the project. |
| 3 | 1.4.1 | Business Case | The document for the Business Case of the project. |
| 3 | 1.4.2 | Project Charter | This shows the charter of the project. Also contains the identity of the project manager. |
| 3 | 1.4.3 | Stakeholder Management Plan | The document about stakeholder management. |
| 3 | 1.4.4 | Stakeholder Analysis | The excel file for the analysis of the stakeholders. |
| 3 | 1.4.5 | Scope Management Plan | The specific file where the project scope is discussed in detail. |
| 3 | 1.4.6 | Cost Management Plan | The document for the project expenditure and budget. |
| 3 | 1.4.7 | Schedule Management Plan | The document containing the schedules of the project. |
| 3 | 1.4.8 | Get Documents Signed | The project sponsor signs the documents made throughout the project. |
| 3 | 1.4.9 | Train the ITRO on how to use the System | Teaching the ITRO how to use the new proposed system which is RAM-IT. |
| 3 | 1.4.10 | Install System | Installing the project to the ITRO’s system. |
| 3 | 1.4.11 | Deploy System | Deployment of the project. |

# Glossary of Terms

Level of Effort: Level of Effort (LOE) is how much work is required to complete a task.

WBS Code: A unique identifier assigned to each element in a Work Breakdown Structure for the purpose of designating the elements hierarchical location within the WBS.

Work Package: A Work Package is a deliverable or work component at the lowest level of its WBS branch.

WBS Component: A component of a WBS which is located at any level. It can be a Work Package or a WBS Element as there's no restriction on what a WBS Component is.

WBS Element: A WBS Element is a single WBS component and its associated attributes located anywhere within a WBS. A WBS Element can contain work, or it can contain other WBS Elements or Work Packages.

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