

WORK BREAKDOWN STRUCTURE (WBS)
RAMKOLEK: DOCUMENT MANAGEMENT SYSTEM FOR PROJECT DOCUMENTATION PAPERS
SUBMISSION

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INTRODUCTION

Ramkolek is a web-based document management system that aims to serve as a portal for students to submit their project documentations. To ensure effective project management, a Work Breakdown Structure is included among the documents to be delivered with the system. The WBS defines the scope and outlines the various components throughout the project phases that must be completed.

This WBS follows the Project Management Body of Knowledge (PMBOK) project life cycle. The Ramkolek project's components are divided into the five PMBOK life cycle phases: initiation, planning, execution, control, and closing. Each phase is further broken down into smaller components in tasks and work packages. In addition to the PMBOK life cycle, the execution phase incorporates Agile methodology, using sprints to align with scrum practices for the system's development.

OUTLINE VIEW

The outline view of the Ramkolek web application provides a clear and summarized high-level overview of the project's development. As presented below, the components are presented in a structured and indented list. Each item is numbered uniquely for identification and indented to represent the component's relationships as either parent or child.

1. Ramkolek:
 - 1.1 Initiation
 - 1.1.1 Study the Current Project Paper Submission Process
 - 1.1.2 Develop the Business Case
 - 1.1.3 Develop the Project Charter
 - 1.1.4 Develop Stakeholder Analysis
 - 1.1.5 Develop Stakeholder Management Strategy
 - 2.1 Planning
 - 2.1.1 Develop the Work Breakdown Structure
 - 2.1.2 Develop the Scope Management Plan
 - 2.1.3 Develop the Schedule Management Plan
 - 2.1.4 Develop the Cost Management Plan
 - 2.1.5 Develop the Work Packages
 - 2.1.6 Develop the Human Resources Plan
 - 2.1.7 Develop the Change Management Plan
 - 2.1.8 Develop the Communication Management Plan
 - 2.1.9 Develop the Quality Management Plan
 - 2.1.10 Develop the Risk Management Plan
 - 2.1.11 Develop the Procurement Management Plan



- 2.1.12 Develop the Implementation Plan
- 2.1.13 Design System
- 3.1 Execution
 - 3.1.1 Develop System
 - 3.1.1.1 Sprint 01
 - 3.1.1.1.1 User Authentication
 - 3.1.1.1.2 Project Submission Form
 - 3.1.1.1.3 Proofreading Request Form
 - 3.1.1.2 Sprint 02
 - 3.1.1.2.1 Roles and Permissions
 - 3.1.1.2.2 System Notifications
 - 3.1.1.2.3 Submission and Request Form Approval
 - 3.1.1.3 Sprint 03
 - 3.1.1.3.1 User Dashboard
 - 3.1.1.3.2 Report Generation
- 4.1 Control
 - 4.1.1 Project Progress Tracking
 - 4.1.2 User Acceptance Testing
- 5.1 Closeout
 - 5.1.1 Documents Compilation and Finalization
 - 5.1.2 Project Handover and Acceptance
 - 5.1.3 Closure Meeting

HIERARCHICAL STRUCTURE

Like the outline view, the hierarchical structure presents the project's overview but does not use an indented list. Instead, the hierarchical structure uses a table with three columns to represent the level, number code, and name of each component.

Level	WBS Code	Element Name
1	1	Ramkolek
2	1.1	Initiation
3	1.1.1	Study the Current Project Paper Submission Process
3	1.1.2	Develop the Business Case
3	1.1.3	Develop the Project Charter
3	1.1.4	Develop Stakeholder Analysis
2	2.1	Planning
3	2.1.1	Develop the Work Breakdown Structure
3	2.1.2	Develop the Scope Management Plan
3	2.1.3	Develop the Schedule Management Plan
3	2.1.4	Develop the Cost Management Plan
3	2.1.5	Develop the Work Packages
3	2.1.6	Develop the Human Resources Plan
3	2.1.7	Develop the Change Management Plan
3	2.1.8	Develop the Communication Management Plan
3	2.1.9	Develop the Quality Management Plan
3	2.1.10	Develop the Risk Management Plan
3	2.1.11	Develop the Procurement Management Plan
3	2.1.12	Develop the Implementation Plan
3	2.1.13	Design System
2	3.1	Execution
3	3.1.1	Develop System
4	3.1.1.1	Sprint 01
5	3.1.1.1.1	User Authentication
5	3.1.1.1.2	Project Submission Form
5	3.1.1.1.3	Proofreading Request Form
4	3.1.1.2	Sprint 02
5	3.1.1.2.1	Roles and Permissions
5	3.1.1.2.2	System Notifications
5	3.1.1.2.3	Submission and Request Form Approval
4	3.1.1.3	Sprint 03
5	3.1.1.3.1	User Dashboard
5	3.1.1.3.2	Report Generation
2	4.1	Control
3	4.1.1	Project Progress Tracking
3	4.1.2	User Acceptance Testing
2	5.1	Closeout

3	5.1.1	Documents Compilation and Finalization
3	5.1.2	Project Handover and Acceptance
3	5.1.3	Closure Meeting

TABULAR VIEW

The tabular view, like the hierarchical structure, uses a table to provide the overview of the project. This table divides the project according to the level of the component, which makes it easier to view the components of the same level grouped together in relation to the parent component.

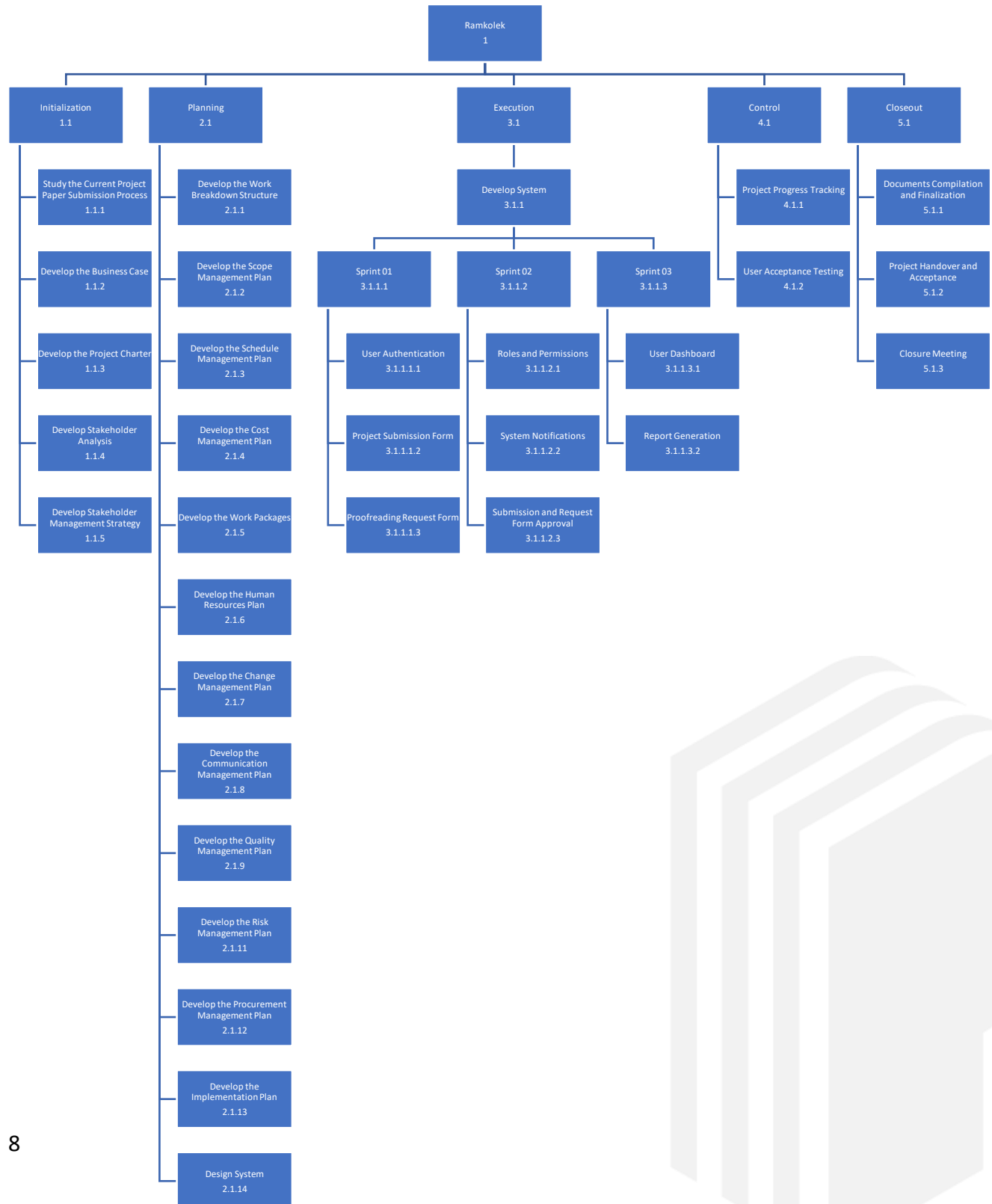


Level 1	Level 2	Level 3	Level 4	Level 5
1 Ramkolek	1.1 Initiation	1.1.1 Study the Current Project Paper Submission Process 1.1.2 Develop the Business Case 1.1.3 Develop the Project Charter 1.1.4 Develop Stakeholder Analysis 1.1.5 Develop Stakeholder Management Strategy		
	2.1 Planning	2.1.1 Develop the Work Breakdown Structure 2.1.2 Develop the Scope Management Plan 2.1.3 Develop the Schedule Management Plan 2.1.4 Develop the Cost Management Plan 2.1.5 Develop the Work Packages 2.1.6 Develop the Human Resources Plan 2.1.7 Develop the Change Management Plan 2.1.8 Develop the Communication Management Plan 2.1.9 Develop the Quality Management Plan 2.1.10 Develop the Risk Management Plan 2.1.11 Develop the Procurement Management Plan 2.1.12 Develop the Implementation Plan 2.1.13 Design System		

	3.1 Execution	3.1.1 Develop System	3.1.1.1 Sprint 01 3.1.1.2 Sprint 02 3.1.1.3 Sprint 03	3.1.1.3.2 User Authentication 3.1.1.3.3 Project Submission Form 3.1.1.3.4 Proofreading Request Form 3.1.1.1.1 Roles and Permissions 3.1.1.1.2 System Notifications 3.1.1.1.3 Submission and Request Form Approval 3.1.1.1.1 User Dashboard 3.1.1.1.2 Report Generation
	4.1 Control	4.1.1 Project Progress Tracking 4.1.2 User Acceptance Testing		
	5.1 Closeout	5.1.1 Documents Compilation and Finalization 5.1.2 Project Handover and Acceptance 5.1.3 Closure Meeting		

TREE STRUCTURE VIEW

Moving away from lists and tables, the tree structure view is the project plan overview in the form of a visual representation to make the understanding of the project components and relationships more intuitive. Each component is represented by a node. High level components are placed higher on the tree and connect to the lower levels through branches.



WBS DICTIONARY

The WBS Dictionary contains all the details of the WBS which are necessary to successfully complete the project. Most importantly it contains a definition of each Work Package which can be thought of as a mini scope statement.



Level	WBS Code	Element Name	Definition
1	1	Ramkolek Web Application	All work to implement a new document management system.
2	1.1	Initiation	The work to initiate the project.
3	1.1.1	Study the Current Project Paper Submission Process	Investigate the current process being used for project documentation submission by interviewing the stakeholders and the client.
3	1.1.2	Develop the Business Case	
3	1.1.2	Develop Project Charter	Project Manager to develop the Project Charter.
3	1.1.3	Deliverable: Submit Project Charter	Project Charter is delivered to the Project Sponsor.
3	1.1.4	Project Sponsor Reviews Project Charter	Project sponsor reviews the Project Charter.
3	1.1.5	Project Charter Signed/Approved	The Project Sponsor signs the Project Charter which authorizes the Project Manager to move to the Planning Process.
2	1.2	Planning	The work for the planning process for the project.
3	1.2.1	Create Preliminary Scope Statement	Project Manager creates a Preliminary Scope Statement.
3	1.2.2	Determine Project Team	The Project Manager determines the project team and requests the resources.
3	1.2.3	Project Team Kickoff Meeting	The planning process is officially started with a project kickoff meeting which includes the Project Manager, Project Team and Project Sponsor (optional).
3	1.2.4	Develop Project Plan	Under the direction of the Project Manager the team develops the project plan.
3	1.2.5	Submit Project Plan	Project Manager submits the project plan for approval.

3	1.2.6	Milestone: Project Plan Approval	The project plan is approved and the Project Manager has permission to proceed to execute the project according to the project plan.
2	1.3	Execution	Work involved to execute the project.
3	1.3.1	Project Kickoff Meeting	Project Manager conducts a formal kick off meeting with the project team, project stakeholders and project sponsor.
3	1.3.2	Verify & Validate User Requirements	The original user requirements is reviewed by the project manager and team, then validated with the users/stakeholders. This is where additional clarification may be needed.
3	1.3.3	Design System	The technical resources design the new widget management system.
3	1.3.4	Procure Hardware/Software	The procurement of all hardware, software and facility needs for the project.
3	1.3.5	Install Development System	Team installs a development system for testing and customizations of user interfaces.
3	1.3.6	Testing Phase	The system is tested with a select set of users.
3	1.3.7	Install Live System	The actual system is installed and configured.
3	1.3.8	User Training	All users are provided with a four hours training class. Additionally, managers are provided with an additional two hours class to cover advanced reporting.
3	1.3.9	Go Live	System goes live with all users.
2	1.4	Control	The work involved for the control process of the project.
3	1.4.1	Project Management	Overall project management for the project.
3	1.4.2	Project Status Meetings	Weekly team status meetings.

3	1.4.3	Risk Management	Risk management efforts as defined in the Risk Management Plan.
3	1.4.4	Update Project Management Plan	Project Manager updates the Project Management Plan as the project progresses.
2	1.5	Closeout	The work to close-out the project.
3	1.5.1	Audit Procurement	An audit of all hardware and software procured for the project, ensures that all procured products are accounted for and in the asset management system.
3	1.5.2	Document Lessons Learned	Project Manager along with the project team performs a lessons learned meeting and documents the lessons learned for the project.
3	1.5.3	Update Files/Records	All files and records are updated to reflect the widget management system.
3	1.5.4	Gain Formal Acceptance	The Project Sponsor formally accepts the project by signing the acceptance document included in the project plan.
3	1.5.5	Archive Files/Documents	All project related files and documents are formally archived.
Level	WBS Code	Element Name	Definition
1	1	Ramkolek	A document management system for project paper submission.
2	1.1	Initiation	Work involved in initiating the project
3	1.1.1	Study the Current Project Paper Submission Process	Research on the business processes for paper submission.
3	1.1.2	Develop the Business Case	Development of the Business case.
3	1.1.3	Develop the Project Charter	Development of the project charter
3	1.1.4	Develop Stakeholder Analysis	Analysis the stakeholders.
2	2.1	Planning	Work involved to planning the project.
3	2.1.1	Develop the Work Breakdown Structure	Creation of the WBS on open project and as a document.
3	2.1.2	Develop the Scope Management Plan	Development of the scope management plan

3	2.1.3	Develop the Schedule Management Plan	Development of the schedule management plan.
3	2.1.4	Develop the Cost Management Plan	Development of the cost management plan.
3	2.1.5	Develop the Work Packages	Development of the work packages document.
3	2.1.6	Develop the Human Resources Plan	Development of the human resources plan.
3	2.1.7	Develop the Change Management Plan	Development of the change management plan.
3	2.1.8	Develop the Communication Management Plan	Development of the communication management plan.
3	2.1.9	Develop the Quality Management Plan	Development of the quality management plan.
3	2.1.10	Develop the Risk Management Plan	Development of the risk management plan.
3	2.1.11	Develop the Procurement Management Plan	Development of the procurement management plan.
3	2.1.12	Develop the Implementation Plan	Development of the implementation plan.
3	2.1.13	Design System	Designing the architecture and UI of the system.
2	3.1	Execution	Work involved to execute the project.
3	3.1.1	Develop System	Development of the system.
4	3.1.1.1	Sprint 01	The first sprint for development.
5	3.1.1.1.1	User Authentication	Login and account authentication.
5	3.1.1.1.2	Project Submission Form	Form to submit project papers.
5	3.1.1.1.3	Proofreading Request Form	The form for requesting proofreading for project papers.
4	3.1.1.2	Sprint 02	The seconds sprint for development.
5	3.1.1.2.1	Roles and Permissions	Access restriction for features.
5	3.1.1.2.2	System Notifications	User notifications for changes in the submissions and requests.
5	3.1.1.2.3	Submission and Request Form Approval	The approval process for the forms.
4	3.1.1.3	Sprint 03	The third sprint for development.
5	3.1.1.3.1	User Dashboard	A dashboard with analytics widgets.
5	3.1.1.3.2	Report Generation	The report generation feature of the system.

2	4.1	Control	The work involved for the control process of the project.
3	4.1.1	Project Progress Tracking	Monitoring of the project's milestones and schedule adherence.
3	4.1.2	User Acceptance Testing	Users test the final version of the system.
2	5.1	Closeout	The work to close-out the project.
3	5.1.1	Documents Compilation and Finalization	Organizing and final checking of documents.
3	5.1.2	Project Handover and Acceptance	Transferring custody of project resources to the client.
3	5.1.3	Closure Meeting	A meeting to discuss the project and review the outcomes.

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.