



American International University-Bangladesh (AIUB)

Department of Computer Science SOFTWARE REQUIREMENT ENGINEERING

Section: B

Faculty: ABHIJIT BHOWMIK

Assignment

Submitted By

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Abstract:

In response to the evolving needs of the travel industry, this project introduces the development of a Travel Agency Management System (TAMS) using the Waterfall model. TAMS addresses the complex challenges faced by travel agencies, including booking management, customer relationship management, secure payment processing, and reporting. The Waterfall model is chosen for its structured approach, providing a systematic and transparent development process tailored to the specific demands of the travel sector.

The motivation for TAMS arises from the limitations of traditional systems in meeting the dynamic requirements of modern travel agencies. By leveraging the Waterfall model, this project aims to deliver a feature-rich system that streamlines operations and enhances customer experiences.

Introduction:

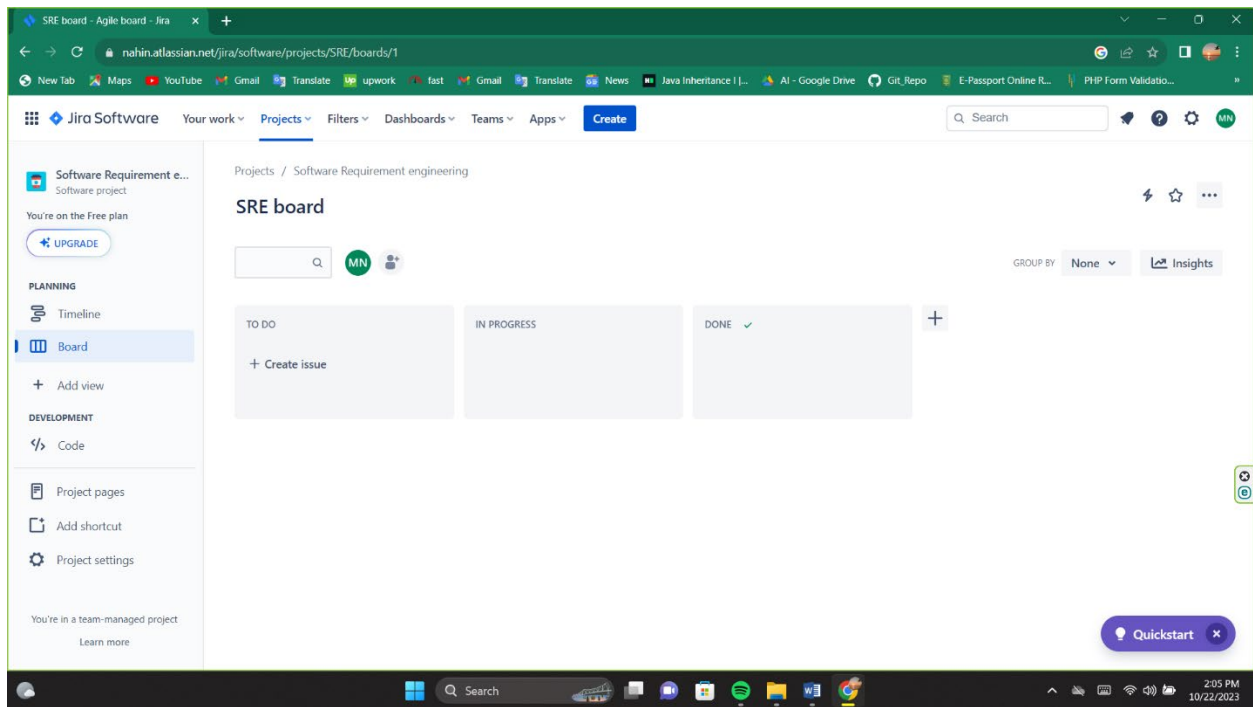
Challenges in Travel Agency Management: The travel industry contends with challenges such as intense competition and the need for real-time information handling. Manual processes for booking management and customer interactions are error-prone and time-consuming. TAMS is designed to overcome these challenges by centralizing key functions and automating processes, offering a comprehensive solution to the complexities of contemporary travel agency operations.

Objectives of TAMS: TAMS is developed with a dual objective: to address current challenges in travel agency operations and provide a scalable foundation for future growth. The system's architecture is designed to eliminate inefficiencies, reduce errors, and enhance the overall customer experience. TAMS not only meets current operational needs but also adapts to the evolving demands of the travel industry.

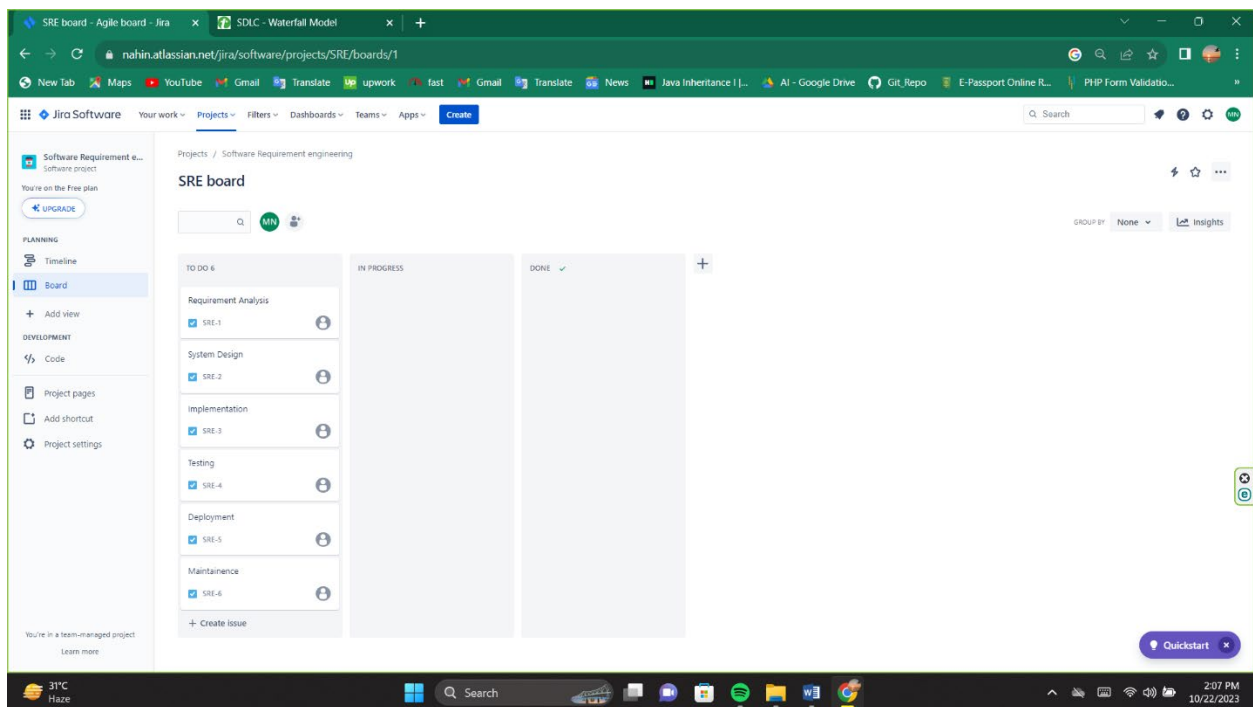
Anticipated Challenges: While the Waterfall model provides a structured approach, challenges may arise in reconciling its sequential nature with the dynamic requirements of the travel industry. Adapting to unforeseen changes in technology, market trends, or regulatory frameworks is a potential challenge. Ensuring the system's scalability and flexibility without compromising its initial stability requires careful consideration. This project acknowledges these challenges and aims to address them through a meticulous development and testing process. The following sections will detail each phase of the Waterfall model, outlining the processes and considerations employed to ensure the successful development and deployment of TAMS.

Demonstration

Dashboard :



Task In Board :



Task In Process :

This screenshot shows the Jira Software interface for a project named 'Software Requirement engineering'. The board is titled 'SRE board' and is currently in 'Agile board' mode. The board is divided into three columns: 'TO DO 5', 'IN PROGRESS 1', and 'DONE 0'. The 'TO DO' column contains five tasks: 'System Design' (SRE-2), 'Implementation' (SRE-3), 'Testing' (SRE-4), 'Deployment' (SRE-5), and 'Maintenance' (SRE-6). The 'IN PROGRESS' column contains one task: 'Requirement Analysis' (SRE-1). The 'DONE' column is empty. The board is grouped by 'None' and has a 'Quickstart' button in the bottom right corner. The left sidebar shows the project's structure, including 'PLANNING', 'DEVELOPMENT', and 'TESTING' sections. The top navigation bar includes links to 'Projects', 'Filters', 'Dashboards', 'Teams', and 'Apps'. The bottom status bar shows the current time as 3:58 PM on 10/22/2023.

Column	Task	ID
TO DO	System Design	SRE-2
TO DO	Implementation	SRE-3
TO DO	Testing	SRE-4
TO DO	Deployment	SRE-5
TO DO	Maintenance	SRE-6
IN PROGRESS	Requirement Analysis	SRE-1
DONE		

This screenshot shows the Jira Software interface for the same project, 'Software Requirement engineering', with the 'SRE board' in 'Agile board' mode. The board is divided into three columns: 'TO DO 4', 'IN PROGRESS 1', and 'DONE 1'. The 'TO DO' column contains four tasks: 'Implementation' (SRE-3), 'Testing' (SRE-4), 'Deployment' (SRE-5), and 'Maintenance' (SRE-6). The 'IN PROGRESS' column contains one task: 'System Design' (SRE-2). The 'DONE' column contains one task: 'Requirement Analysis' (SRE-1). The board is grouped by 'None' and has a 'Quickstart' button in the bottom right corner. The left sidebar shows the project's structure, including 'PLANNING', 'DEVELOPMENT', and 'TESTING' sections. The top navigation bar includes links to 'Projects', 'Filters', 'Dashboards', 'Teams', and 'Apps'. The bottom status bar shows the current time as 3:58 PM on 10/22/2023.

Column	Task	ID
TO DO	Implementation	SRE-3
TO DO	Testing	SRE-4
TO DO	Deployment	SRE-5
TO DO	Maintenance	SRE-6
IN PROGRESS	System Design	SRE-2
DONE	Requirement Analysis	SRE-1

SRE board - Agile board - Jira x SDLC - Waterfall Model x +

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Projects / Software Requirement engineering

SRE board

GROUP BY: None Insights

TO DO 3	IN PROGRESS 1	DONE 2 ✓
Testing SRE-4	Implementation SRE-3	Requirement Analysis SRE-1
Deployment SRE-5		System Design SRE-2
Maintenance SRE-6		
+ Create issue		

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Quickstart

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Projects / Software Requirement engineering

SRE board

GROUP BY: None Insights

TO DO 2	IN PROGRESS 1	DONE 3 ✓
Deployment SRE-5	Testing SRE-4	Requirement Analysis SRE-1
Maintenance SRE-6		System Design SRE-2
+ Create issue		Implementation SRE-3

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SRE board

Q MN

GROUP BY: None Insights

TO DO 1

Maintenance
SRE-6
+ Create issue

IN PROGRESS 1

Deployment
SRE-5

DONE 4 ✓

Requirement Analysis
SRE-1 ✓
System Design
SRE-2 ✓
Implementation
SRE-3 ✓
Testing
SRE-4 ✓

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SRE board

Q MN

GROUP BY: None Insights

TO DO

+ Create issue

IN PROGRESS 1

Maintenance
SRE-6

DONE 5 ✓

Requirement Analysis
SRE-1 ✓
System Design
SRE-2 ✓
Implementation
SRE-3 ✓
Testing
SRE-4 ✓
Deployment
SRE-5 ✓

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SRE board

Q MN

GROUP BY: None Insights

TO DO 3	IN PROGRESS 1	DONE 2 ✓
Testing SRE-4	Implementation SRE-3	Requirement Analysis SRE-1
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+ Create issue		

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Q MN

GROUP BY: None Insights

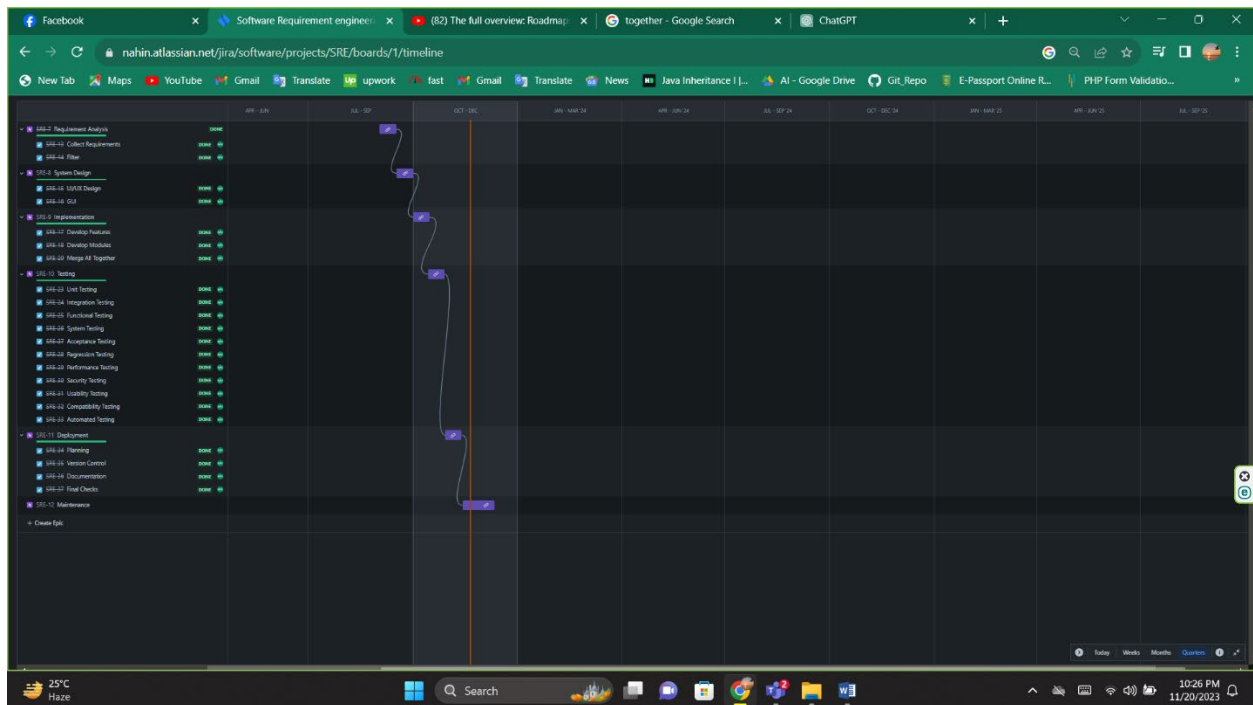
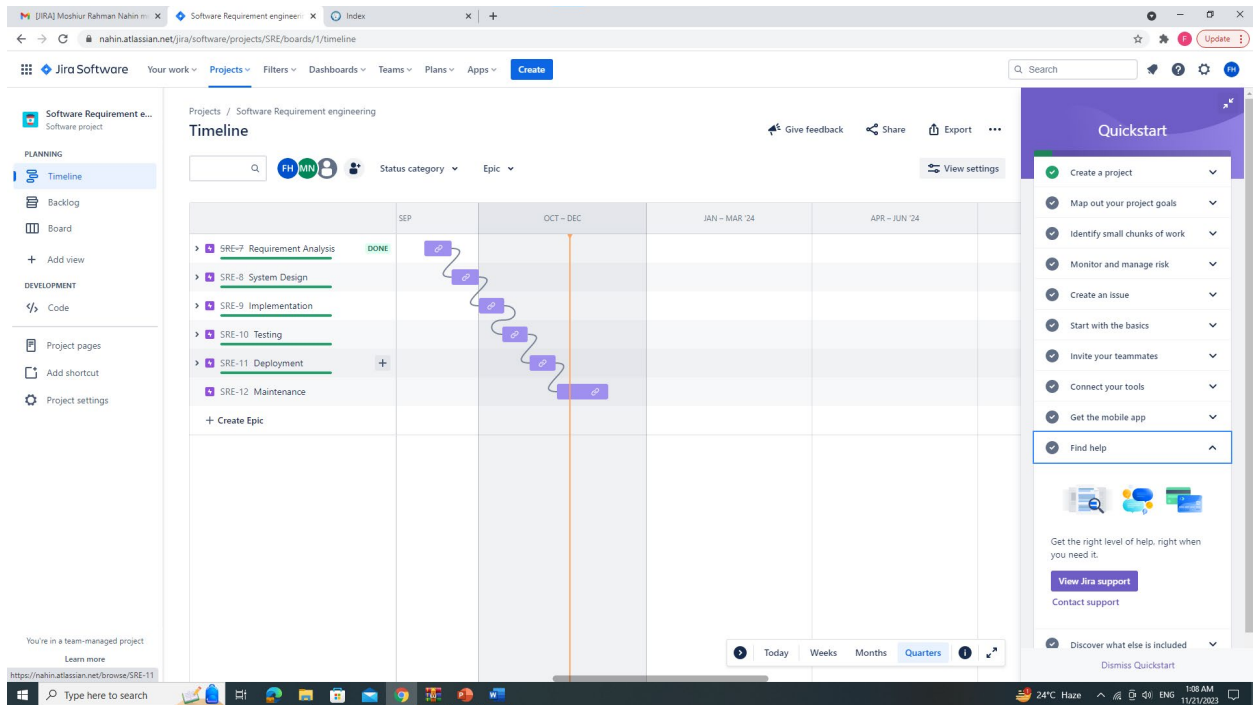
TO DO	IN PROGRESS	DONE 6 ✓
+ Create issue		Requirement Analysis SRE-1
		System Design SRE-2
		Implementation SRE-3
		Testing SRE-4
		Deployment SRE-5
		Maintenance SRE-6

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Quickstart

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RoadMap :



Create new project:

The screenshot shows the 'Create new project' form in Jira Software. The left sidebar contains navigation links: Software Requirement e..., Software project, You're on the Free plan, UPGRADE, Back to project, Details (selected), Access, Notifications, Automation, Issue types, Features, Board, Toolchain, and You're in a team-managed project. The main form area has a project icon (a red and white coffee cup) and a 'Change icon' button. The form fields are: Name (Software Requirement engineering), Key (SRE), Category (Choose a category), Project lead (Moshiur Rahman Nahin), and Default assignee (Project lead). A 'Save' button is at the bottom.

The screenshot shows the 'Choose a project type' screen in Jira Software. The top section is 'Project template' with a 'Kanban' template selected. The bottom section is 'Choose a project type' with two options: 'Team-managed' and 'Company-managed'. The 'Team-managed' option is highlighted with a purple button. A warning message states: 'You'll need to create a new project if you decide to switch project types later.' The bottom of the screen shows the Windows taskbar with the date and time 10:31 PM 11/20/2023.

conclusion:

the development of the Travel Agency Management System (TAMS) using the Waterfall model represents a strategic and systematic approach to addressing the multifaceted challenges that modern travel agencies encounter. By adhering to the sequential phases of the Waterfall model,

spanning requirements analysis through maintenance, the project ensures a comprehensive and transparent development process. TAMS is specifically tailored to centralize operations, automate critical functions, and enhance security measures, offering a holistic solution to the inefficiencies associated with manual processes in the travel industry. This system not only addresses existing challenges but also establishes a scalable foundation to accommodate the dynamic and evolving nature of the travel landscape. While challenges persist in aligning the sequential model with the industry's inherent dynamism, the project's emphasis on meticulous planning and adaptive strategies instills confidence that TAMS will stand as a resilient and valuable asset for travel agencies, empowering them to excel amidst the ever-changing market conditions. In essence, TAMS signifies a commitment to innovation and operational excellence, setting the stage for continued advancements and adaptability in the face of an increasingly dynamic travel industry.