

Banking Application System

- Keerthika N

Project Description:

This project simulates a simple banking application that includes core features such as user registration and authentication, account services, fund transfers, transaction history, and security enhancements. This work item breakdown defines the functional units using Agile methodology.

Hierarchical Breakdown:

EPIC 1: User Management

- **Feature:** User Registration
 - User Story: Register via Email
 - Tasks:
 - Design Registration UI
 - Build Register API
 - Save User to DB
 - Hash Passwords
 - Send Welcome Email
- **Feature:** User Authentication
 - User Story: Login with Credentials
 - Tasks:
 - Design Login Page
 - Create Login API
 - Implement Session/JWT

- Redirect on Success
- User Story: Handle Failed Login Attempts
 - Tasks:
 - Count Login Failures
 - Block after 3 Attempts
 - Show Error Messages
- **Feature:** Password Reset
 - User Story: Request Password Reset
 - Tasks:
 - Add “Forgot Password” UI
 - Generate Reset Token
 - Send Reset Email
 - User Story: Reset via Email Link
 - Tasks:
 - Design Reset Page
 - Build Reset API
 - Update Password in DB

EPIC 2: Account Services

- **Feature:** View Account Balance
 - User Story: Fetch Account Balance
 - Tasks:
 - Create Balance API

- Display in Dashboard
 - Handle No Balance
- **Feature:** View Account Details
 - User Story: Display Account Info
 - Tasks:
 - Design Info Section
 - Fetch User Details
 - Mask Sensitive Data

EPIC 3: Fund Transfer

- **Feature:** Initiate Transfer
 - User Story: Enter Transfer Details
 - Tasks:
 - Create Transfer Form
 - Validate Amount/Input
 - Build Transfer API
 - User Story: Check Balance Before Transfer
 - Tasks:
 - Fetch & Compare Balance
 - Show Error if Low Balance
- **Feature:** Confirm Transfer
 - User Story: Show Confirmation Message
 - Tasks:

- Design Success Page
- Display Ref ID & Date
- User Story: Email Transfer Receipt
 - Tasks:
 - Format Receipt Email
 - Trigger Email After Transfer

EPIC 4: Transaction History

- **Feature:** View Transactions
 - User Story: List Past Transactions
 - Tasks:
 - Build History Table
 - Create Fetch API
 - Handle Empty State
 - User Story: Search & Filter Transactions
 - Tasks:
 - Add Search Box
 - Filter by Date & Type
- **Feature:** Export Transactions
 - User Story: Export as PDF/Excel
 - Tasks:
 - Add Export Button
 - Generate Report File

- Download or Email File

EPIC 5: Security & Compliance

- **Feature:** Audit Logs
 - User Story: Log User Activities
 - Tasks:
 - Capture Actions (Login, Transfer)
 - Save to Logs Table
 - User Story: View Audit Logs
 - Tasks:
 - Build Admin View Page
 - Filter by User/Action/Date
- **Feature:** Two-Factor Authentication
 - User Story: Send OTP for Login
 - Tasks:
 - Generate OTP
 - Send via SMS/Email
 - User Story: Validate OTP Input
 - Tasks:
 - Design OTP Form
 - Create OTP Verify API
 - Handle Expired OTP

EPICS:

Azure DevOps

Keerthika2004 / Banking Application System / Boards / Work items

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Repos

Work items

Recently updated | + New Work Item | Open filtered view in Queries | Column Options | Import Work Items | ...

Filter by keyword | Epic | Assigned to | States | Area | Tags | X

ID	Title	Assigned To	State	Area Path
108	Security & Compliance	Keerthika Nagarajan	New	Banking Application Syster
107	Transaction History	Keerthika Nagarajan	New	Banking Application Syster
106	Fund Transfer	Keerthika Nagarajan	New	Banking Application Syster
105	Account Services	Keerthika Nagarajan	New	Banking Application Syster
104	User Management	Keerthika Nagarajan	New	Banking Application Syster

FEATURES:

Azure DevOps

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Filter by keyword | Feature | Assigned to | States | Area | Tags | X

ID	Title	Assigned To	State	Area Path
138	View Audit Logs	Unassigned	New	Banking Application Sys
136	Two-Factor Authentication	Unassigned	New	Banking Application Sys
135	Audit Logs	Unassigned	New	Banking Application Sys
131	Export Transactions	Unassigned	New	Banking Application Sys
130	View Transactions	Unassigned	New	Banking Application Sys
125	Confirm Transfer	Unassigned	New	Banking Application Sys
124	Initiate Transfer	Unassigned	New	Banking Application Sys
121	View Account Details	Unassigned	New	Banking Application Sys
120	View Account Balance	Unassigned	New	Banking Application Sys
112	Password Reset	Unassigned	New	Banking Application Sys

USER STORIES:

BS Banking Application Sy... +

Overview

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Work items

Recently updated ▾

+ New Work Item ▾

↩ Open filtered view in Queries

Column Options

Import Work Items

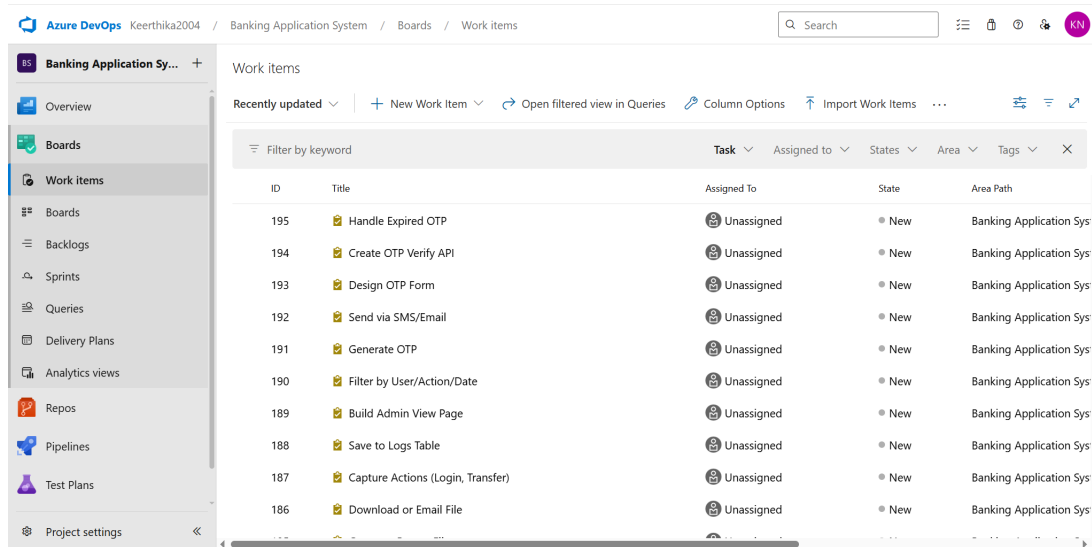
...

Filter by keyword

User Story ▾Assigned to ▾States ▾Area ▾Tags ▾X

ID	Title	Assigned To	State	Area Path
128	Show Confirmation Message	Keerthika Nagarajan	Resolved	Banking Application Sy:
127	Check Balance Before Transfer	Keerthika Nagarajan	Resolved	Banking Application Sy:
122	Fetch Account Balance	Keerthika Nagarajan	Active	Banking Application Sy:
123	Display Account Info	Keerthika Nagarajan	Active	Banking Application Sy:
119	Reset via Email Link	Keerthika Nagarajan	Active	Banking Application Sy:
117	Handle Failed Login Attempts	Keerthika Nagarajan	Active	Banking Application Sy:
129	Email Transfer Receipt	Keerthika Nagarajan	Active	Banking Application Sy:

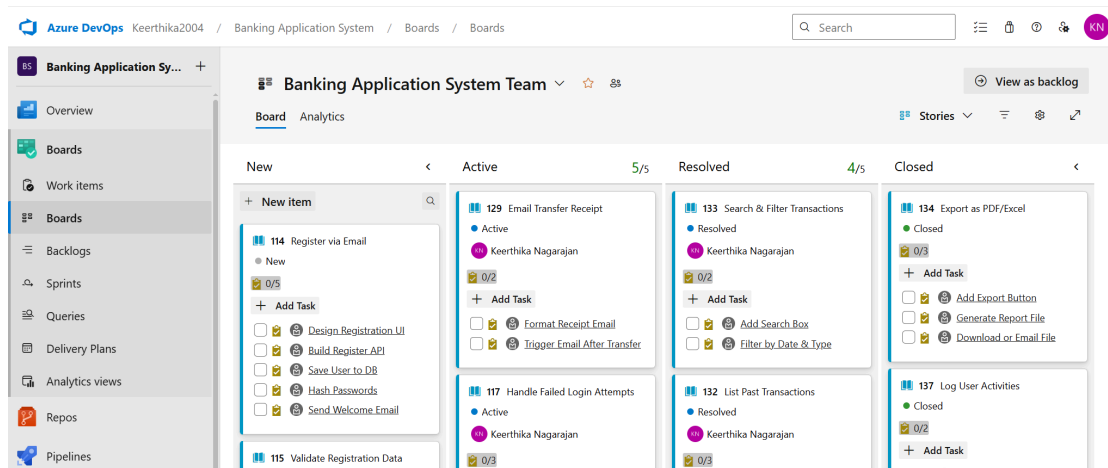
TASKS:



The screenshot shows the 'Work items' page in Azure DevOps for the 'Banking Application System' project. The left sidebar contains navigation links: Overview, Boards, Work Items (selected), Backlogs, Sprints, Queries, Delivery Plans, Analytics views, Repos, Pipelines, Test Plans, and Project settings. The main area displays a table of work items with columns: ID, Title, Assigned To, State, and Area Path. The items are filtered by 'Recently updated' and are all in the 'New' state, assigned to 'Unassigned'. The table lists 10 items with IDs ranging from 186 to 195.

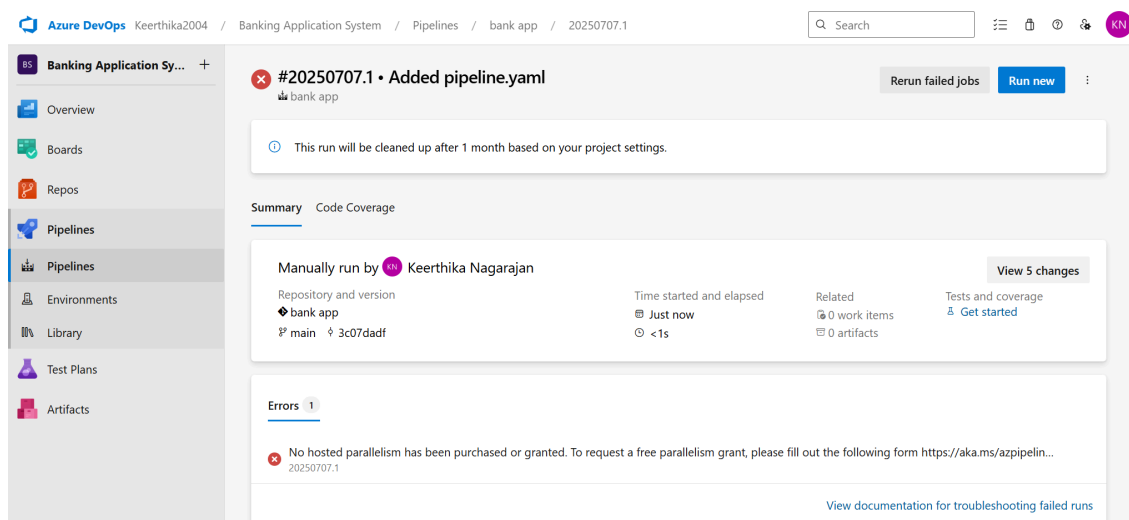
ID	Title	Assigned To	State	Area Path
195	Handle Expired OTP	Unassigned	New	Banking Application Sys
194	Create OTP Verify API	Unassigned	New	Banking Application Sys
193	Design OTP Form	Unassigned	New	Banking Application Sys
192	Send via SMS/Email	Unassigned	New	Banking Application Sys
191	Generate OTP	Unassigned	New	Banking Application Sys
190	Filter by User/Action/Date	Unassigned	New	Banking Application Sys
189	Build Admin View Page	Unassigned	New	Banking Application Sys
188	Save to Logs Table	Unassigned	New	Banking Application Sys
187	Capture Actions (Login, Transfer)	Unassigned	New	Banking Application Sys
186	Download or Email File	Unassigned	New	Banking Application Sys

BOARD:



The screenshot shows the 'Banking Application System Team' Kanban board in Azure DevOps. The board is organized into four columns: New, Active (5/5), Resolved (4/5), and Closed. Each column contains a list of work items with their titles, status, and progress. The 'New' column has items 114 and 115. The 'Active' column has items 129 and 117. The 'Resolved' column has items 133 and 132. The 'Closed' column has items 134 and 137. Each item has a progress bar and an 'Add Task' button.

CONFIGURE AND RUN AZURE PIPELINE:



The screenshot shows the 'bank app' pipeline run page in Azure DevOps. The top section displays the pipeline name '#20250707.1 • Added pipeline.yaml' and a 'Run new' button. Below this, a message states: 'This run will be cleaned up after 1 month based on your project settings.' The 'Summary' tab is selected, showing the pipeline was manually run by 'Keerthika Nagarajan'. The 'Errors' section shows a single error: 'No hosted parallelism has been purchased or granted. To request a free parallelism grant, please fill out the following form https://aka.ms/azpipelin...'. A 'View documentation for troubleshooting failed runs' link is provided at the bottom.