CRED AI

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CredAI – Alternative Credit Scoring & Smart Loan Approval System

Assignment 2 – Iteration 1: Sprint 1 Report

Module Developed in Sprint 1: User Registration and Credit Score Generation Module

1. Sprint Objective

The objective of Sprint 1 was to design and document the **user onboarding flow**, which includes **registration**, **profile creation**, and **AI-based credit score generation** for small loans ($\le$ PKR 500,000). This sprint focuses on the foundation of the system where users can create accounts, input personal and behavioral data, and view their generated credit score.

2. Sprint Backlog

Sprint Goal	Deliverables
Develop user registration, profile setup, and credit score view	10 user stories with structured specs, Trello setup, burn-down chart, report

3. User Stories & Sub Stories (Detailed)

User Story US-01: User Registration

Story ID: US-01
Story Title: User Registration

User Story:
As a new user, I want to register using my CNIC and phone number so that I can securely create my CredAI account.

Acceptance Criteria:

- User must enter valid CNIC, name, and mobile number.
- The system should validate CNIC format before submission.
- Duplicate CNIC or phone numbers should not be allowed.
- Successful registration should save the user record into the mock database.
- Appropriate error messages should be displayed for invalid or missing inputs.

Sub User Stories for US-01

US-01.1: As a new user, I want the system to validate my CNIC format in real-time so that I can correct mistakes before submitting the form.
US-01.2: As a new user, I want the system to ensure that no duplicate CNIC or phone number exists so that my account remains unique and secure.
US-01.3: As a new user, I want my registration details to be stored in a mock database so that I can proceed with future CredAI actions.

User Story US-02: Phone Verification

Story ID: US-02
Story Title: Phone Verification

User Story:
As a user, I want to verify my phone number via OTP so that only authentic users can register.

Acceptance Criteria:

- System should generate a mock OTP for verification.
- Users who do not verify their phone number cannot continue to profile setup.
- Incorrect OTP should show an error message.
- Successful verification should mark the user as “verified” in the system.

Sub User Stories for US-02

US-02.1: As a user, I want to receive a simulated OTP so that I can verify that my phone number is valid.
US-02.2: As a user, I want the system to block profile setup until verification is complete so that registration remains secure.
US-02.3: As a user, I want the system to show an error when I enter an incorrect OTP so that I can retry and complete verification.

User Story US-03: Profile Setup

Story ID: US-03
Story Title: Profile Setup

User Story:
As a registered user, I want to complete my financial profile so that the system can calculate my personalized credit score.

Acceptance Criteria:

- User must enter income bracket, household type, and dependents.
- All data must be stored in the user’s local dataset.
- System should validate mandatory fields.
- User should not proceed without completing the profile.

Sub User Stories for US-03

US-03.1: As a user, I want to select my income bracket so that the system can analyze my financial capacity.
US-03.2: As a user, I want to enter my number of dependents so that my overall risk profile can be assessed.

US-03.3: As a user, I want my profile data to be saved automatically so that it can be used later for credit scoring.

User Story US-04: Telco Data Entry (Mock)

Story ID: US-04
Story Title: Telco Data Entry

User Story:
As a user, I want to enter my monthly mobile top-up and usage information so that my telco behavior can affect my credit score.

Acceptance Criteria:

- User must enter top-up frequency, average usage, and payment regularity.
- Data must be linked to the scoring formula.
- System should validate numeric values where required.

Sub User Stories for US-04

US-04.1: As a user, I want to record my monthly top-up frequency so that the system can interpret my spending stability.
US-04.2: As a user, I want to enter my mobile usage patterns so that my financial consistency can be evaluated.
US-04.3: As a user, I want to specify whether payments were timely so that my telco payment behavior is reflected in the score.

User Story US-05: Utility Bill Entry (Mock)

Story ID: US-05
Story Title: Utility Bill Entry

User Story:
As a user, I want to record my electricity and gas bill payment history so that timely payments can improve my credit score.

Acceptance Criteria:

- User must indicate on-time or late payments.
- Late or missed payments should negatively affect scoring.
- Information must be stored for use in the scoring calculation.

Sub User Stories for US-05

US-05.1: As a user, I want to input my monthly electricity bill payment status so that the system evaluates my bill discipline.
US-05.2: As a user, I want to add my gas bill payment history so that all utilities contribute to my score.
US-05.3: As a user, I want the system to apply scoring weights to on-time and late payments so that my score is accurately calculated.

User Story US-06: Credit Score Calculation

Story ID: US-06
Story Title: Credit Score Calculation

User Story:
As a system, I want to calculate the credit score (0–850) so that users can know their financial reliability.

Acceptance Criteria:

- Score should be calculated using weighted sum of telco, utility, and self-declared data.
- Formula must follow:
  Telco = 40%, Utility = 30%, Income & Dependents = 20%, Repayment Behavior = 10%.
- Explanation must be displayed for each contributing component.

Sub User Stories for US-06

US-06.1: As a system, I want to apply weighted calculations so that user scores follow a consistent model.
US-06.2: As a system, I want to analyze all user inputs so that scoring remains comprehensive.
US-06.3: As a system, I want to generate score breakdowns so that users understand how their behavior affects scoring.

User Story US-07: Credit Score Display

Story ID: US-07
Story Title: Score Display

User Story:
As a user, I want to view my generated score so that I can understand my loan eligibility.

Acceptance Criteria:

- Score must be displayed on the dashboard.
- Score category labels (“Excellent,” “Fair,” “Poor”) must be shown.
- Breakdown such as “On-time bills +20”, “Missed bills –30” must be visible.

Sub User Stories for US-07

US-07.1: As a user, I want to see my numeric score so that I know my overall creditworthiness.
US-07.2: As a user, I want to see my score category so that I can interpret my standing easily.
US-07.3: As a user, I want to see detailed score insights so that I understand the reasons behind my score.

User Story US-08: Dashboard Interface

Story ID: US-08
Story Title: Dashboard Interface

User Story:
As a user, I want to see a clean dashboard showing my credit score and profile information so that I can easily navigate and manage my account.

Acceptance Criteria:

- Dashboard must show name, CNIC, and credit score.

- Loan eligibility should also be displayed.
- “Apply for Loan” button should be visible but inactive for now.

Sub User Stories for US-08

US-08.1: As a user, I want the dashboard to display my personal information so that I can quickly verify my profile.
US-08.2: As a user, I want to see loan eligibility information so that I know whether I qualify for small loans.
US-08.3: As a user, I want an “Apply for Loan” button so that I can initiate applications in future sprints.

User Story US-09: Data Validation & Error Handling

Story ID: US-09
Story Title: Data Validation

User Story:
As a system, I want to validate all user inputs so that incorrect or missing data does not cause calculation errors.

Acceptance Criteria:

- Mandatory fields must not be left blank.
- CNIC, phone, income bracket, and payment data must follow expected formats.
- System must show descriptive error messages.

Sub User Stories for US-09

US-09.1: As a system, I want to check for missing mandatory fields so that incomplete data is not accepted.
US-09.2: As a system, I want to validate numeric inputs so that incorrect formats do not break calculations.
US-09.3: As a system, I want to display clear error prompts so that users can correct inputs easily.

User Story US-10: Help & Guidance

Story ID: US-10
Story Title: Help & Guidance

User Story:
As a first-time user, I want to view tips about how my data affects my credit score so that I can improve future loan chances.

Acceptance Criteria:

- The dashboard must offer basic financial behavior tips.
- “Learn More” section must be available.
- Tips should explain positive and negative scoring behaviors.

Sub User Stories for US-10

US-10.1: As a user, I want the system to show simple tips about improving loan chances so that I can make informed decisions.
US-10.2: As a user, I want a “Learn More” section so that I can understand how CredAI scoring works.

US-10.3: As a user, I want insights on good vs. bad financial behavior so that I can improve my future score.

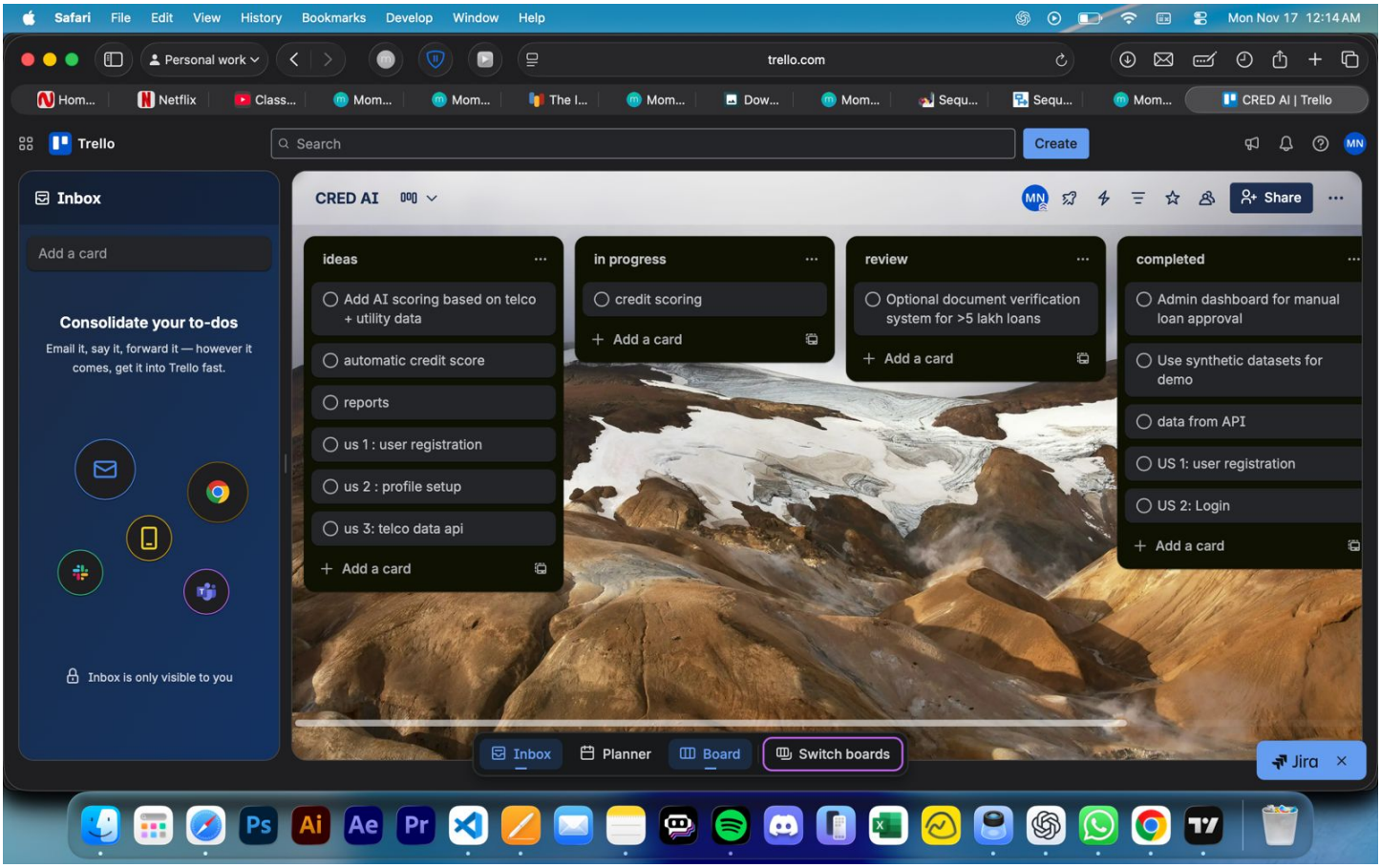
4. Structured Specifications

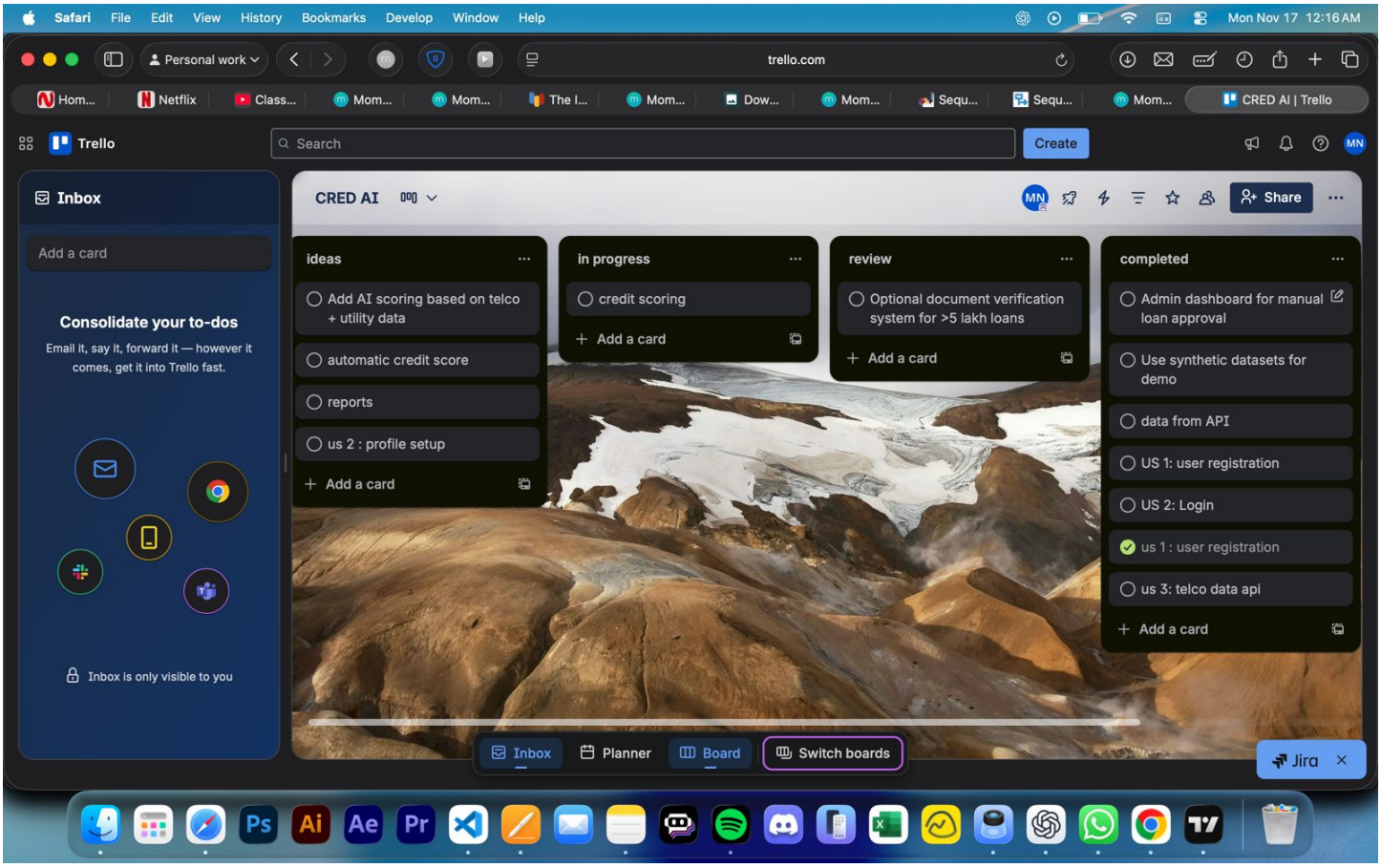
ID	User Story	Input	Process	Output	Priority
US1	User Registration	CNIC, phone	Validate & save	User record created	High
US2	Phone Verification	OTP (mock)	Verify & proceed	Access granted	High
US3	Profile Setup	Income, dependents	Store profile data	Updated profile	High
US4	Telco Data Entry	Top-up data	Store for scoring	Data stored	Medium
US5	Utility Data Entry	Bill records	Store for scoring	Data stored	Medium
US6	Credit Score Calculation	Mock data	Weighted calculation	Score (0–850)	High
US7	Score Display	Score, user info	Display results	Dashboard output	High
US8	Dashboard UI	Profile + score	Render UI	Dashboard visible	Medium
US9	Validation	Inputs	Check validity	Error messages	High
US10	Help & Guidance	Static text	Display info	Tips section	Low

5. Sprint Progress Overview

Phase	Tasks Completed	Remarks
Start (Oct 1)	Sprint backlog uploaded to Trello	Snapshot 1 Placeholder
Mid (Oct 8)	6/10 user stories in progress or review	Snapshot 2 Placeholder
End (Oct 14)	9 completed, 1 moved to Sprint 2	Snapshot 3 Placeholder

6. Trello Working

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Inbox is only visible to you
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Share
ideas
Add AI scoring based on telco + utility data
automatic credit score
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us 2 : profile setup
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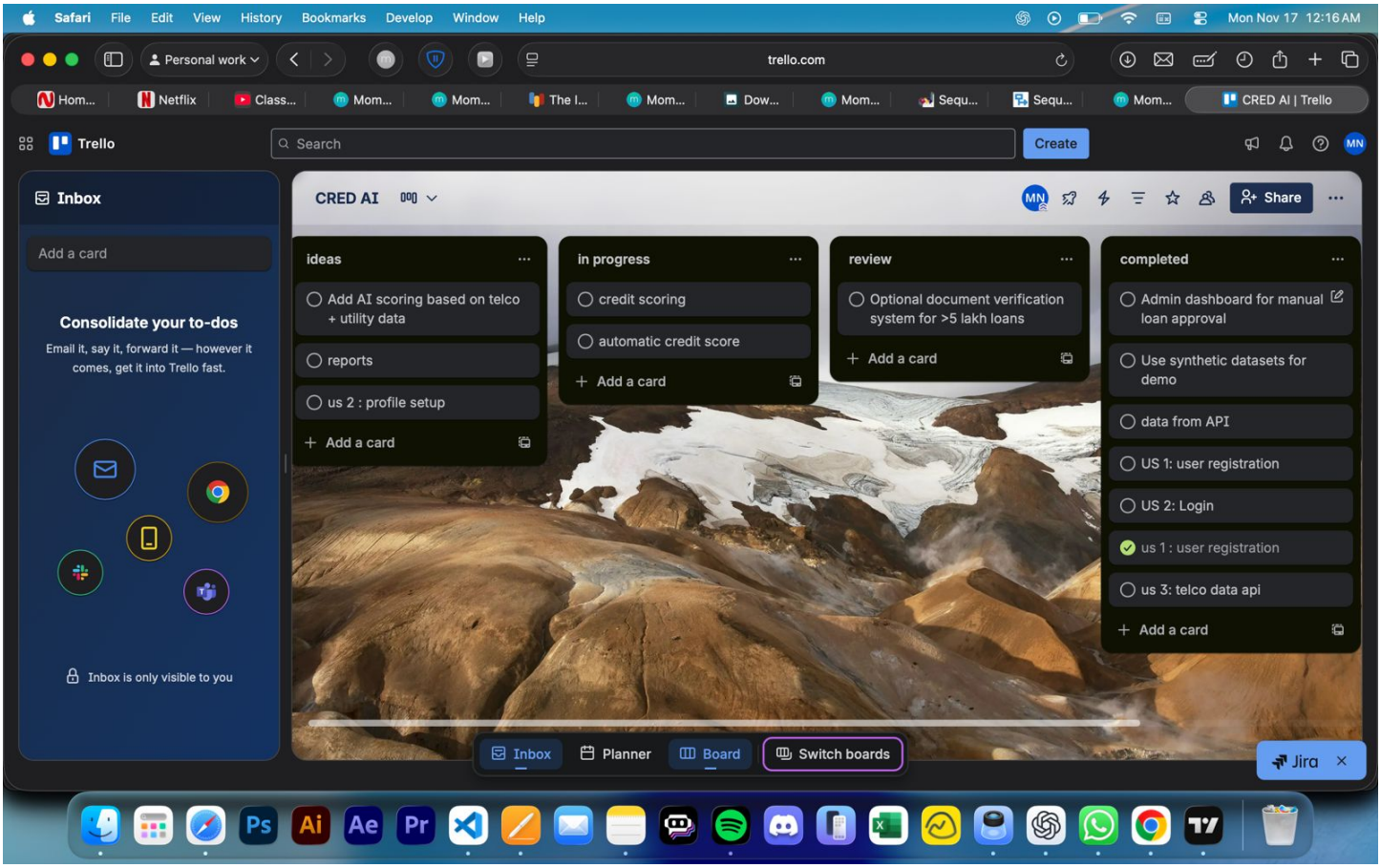
Optional document verification system for >5 lakh loans
Add a card
completed
Admin dashboard for manual loan approval
Use synthetic datasets for demo
data from API
US 1: user registration
US 2: Login
us 1 : user registration
us 3: telco data api
Add a card
Inbox
Planner
Board
Switch boards
Jira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Add a card
Consolidate your to-dos
Email it, say it, forward it — however it comes, get it into Trello fast.
Inbox is only visible to you
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Share
ideas
Add AI scoring based on telco + utility data
reports
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Add a card
in progress
credit scoring
automatic credit score
Add a card
review
Optional document verification system for >5 lakh loans
Add a card
completed
Admin dashboard for manual loan approval
Use synthetic datasets for demo
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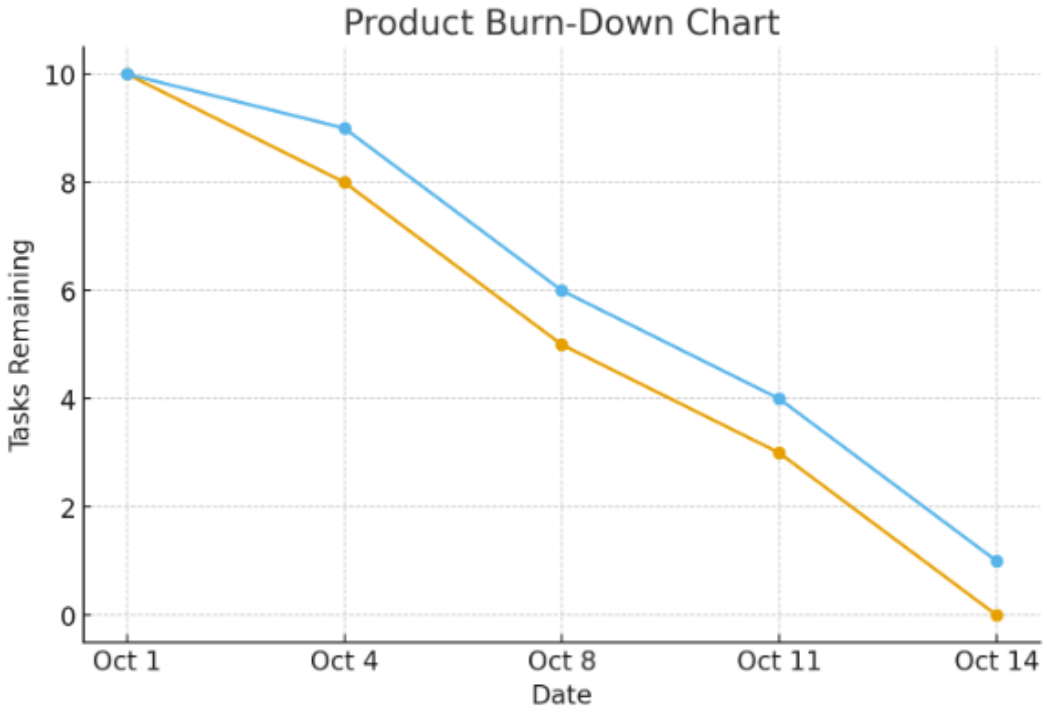
US 1: user registration
US 2: Login
us 1 : user registration
us 3: telco data api
Add a card
Inbox
Planner
Board
Switch boards
Jira

7. Product Burn-Down Chart



8. Conclusion

Sprint 1 successfully laid the foundation for the CredAI system by completing the core onboarding and credit score generation module. The team gathered and structured requirements, developed detailed user stories with sub-stories and implemented the mock data flow required for calculating and displaying user credit scores. The burn-down chart reflects consistent progress throughout the sprint, with only one low-priority task carried forward to the next iteration. Overall, the sprint met its primary objectives by establishing a functioning and validated framework for user registration, profile setup, telco and utility data entry and AI-based score calculation. With this stable groundwork in place, the team is well-prepared to advance into Sprint 2, which will focus on enhancing user experience.