# Milestone 6 Report

Team ”Wings of Freedom” - Group 8

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## Project Report

## Milestone Details

### Milestone 1:

- In milestone 1, we have analysed the requirements and created clear, concise agile-style requirements – User Stories.
- We have constructed user stories with respect to various types of users – Primary, Secondary and Tertiary.
- All the user stories follow SMART Principle which states that a user story must be Specific, Measurable, Achievable, Relevant and Time bound.

### Milestone 2:

- In milestone 2, based on the constructed user stories, we have created story boards and highly abstracted wireframes.
- A storyboard is a graphic organizer that provides the viewer with a high-level view of a project.
- In Agile software development, a storyboard can help developers quickly get a sense of what work still needs to be completed.
- We have created a story board with ppt which explains basic working of project in fun and interactive manner.
- We have also done various high-level wireframes of various view of our project.
- We have iterated wireframe such that it satisfies Nielsen’s Heuristics.

**Milestone 3:**

- In week 3, we had to plan and schedule tasks using a project management tool and design basic class diagram.
- For project management and issue tracking, we chose to use JIRA.
- In JIRA we can schedule tasks and create issues and track them. We have used GANTT chart to plan and schedule project and created backlogs. Each user stories are broken into one / two sprints based on its velocity.
- We have designed simple class diagram for our project. This is done by analysing main objects / components in our project and the relationship between them.
- Later we have refined it like using inheritance and composition. We have designed the diagram using an online tool.

**Milestone 4:**

- In week 4, we had to design and develop RESTful API and document it in a YAML file.
- Initially we had to find out various resources of our project and it was easily identified since we had designed class diagram.
- Then we have designed various endpoints for the resources – URL, expected body, expected response, status, and error messages etc.
- The API was Open API specification compliant, and it can be tested in swaggerUI or tools like Insomnia / postman.

**Milestone 5:**

- In week 5, we had to design and implement test cases for our project.
- Since the project is developed in an Agile way, we have followed Test Driven Development (TDD).
- Before implementing methods / APIs, we first wrote test and later written implementation for that test such that it passes.
- Refactoring was a challenge by following this approach, but we had confidence adding new code, by knowing it doesn't break existing code.



# Implementation Details

**Technologies and tools used:**

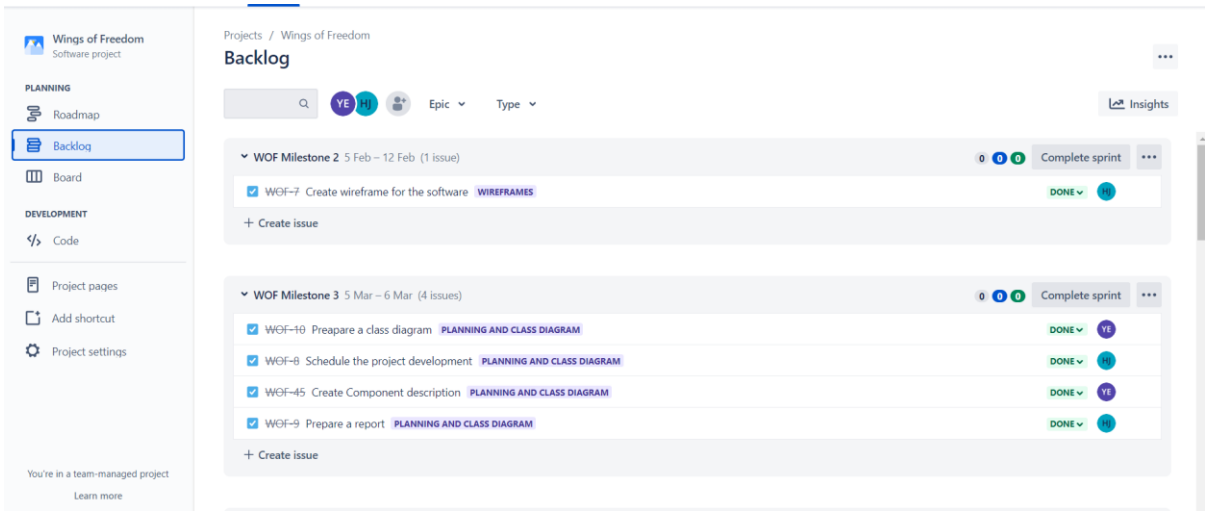
- flask - Makes back-end development simple and flexible.
- flask_restful - To implement RESTful API faster.
- flask_sqlalchemy - To work with database easily.
- flask_login – Inbuild functionality to register and login user. (Auth).
- Pytest – framwork for testing code.
- SQlite – Database.
- Bootstrap - Quickly develop beautiful websites.
- Vue JS – Used to make UI faster and reactive.
- Issue tracking – JIRA.
- Version tracking – GIT.

**To run the application:**

- First install all packages present in requirements.txt by using pip install -r requirements.txt in that file location.
- Then run main.py file by python main.py.
- Login information
  - Email – abc@123.com
  - Password – 123
- To run tests, head to src folder, enter pytest ./tests in the terminal.

## Code Review, Issue tracking and reporting.

- Any new additions / changes in source code, was written in separate branch and send to teammate for review, only after review, new code is merged to main branch.
- JIRA is used for issue tracking and reporting. Issues are grouped under a sprint which can be strike off once completed.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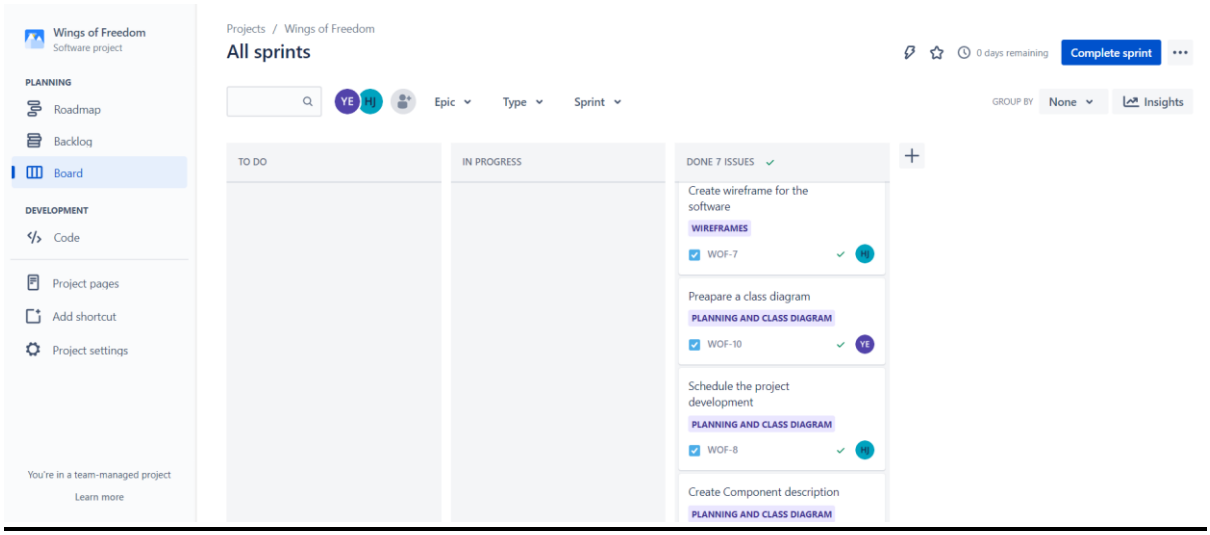
WOF Milestone 2 5 Feb – 12 Feb (1 issue)
Complete sprint
WOF-7 Create wireframe for the software WIREFRAMES
DONE
Create issue
WOF Milestone 3 5 Mar – 6 Mar (4 issues)
Complete sprint
WOF-10 Preapare a class diagram PLANNING AND CLASS DIAGRAM
WOF-8 Schedule the project development PLANNING AND CLASS DIAGRAM
WOF-45 Create Component description PLANNING AND CLASS DIAGRAM
WOF-9 Prepare a report PLANNING AND CLASS DIAGRAM
Create issue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TO DO
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