

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.