

Weekly Progress Report - WEEK 1

Chheng Kimter:

Task Done Last Week

- [Task 1]: Completed Figma prototype (for GUI planning)
- Challenges: choosing the theme and color was a bit complicated; I had to test multiple combinations to get the current result. I overcome these challenges by looking for color plates on Pinterest and looking at some UI website designs.
- The issues that were assigned to me were all related to GUI specific tasks. So far, I have only completed the prototype, and it was approved so I will start GUI coding this week.



- Total time spent to complete prototype: 4 hours
- No deviations from the original plan.
- Lesson learned: start it earlier so I can get it off my mind and complete other tasks.

Tasks to be done this week:

- Complete GUI according to prototype without integrating with backend yet.
- Estimate for full GUI: 15 hours
- Dependencies: backend code (with is already almost done with)
- Expected challenges: Boxes not aligning accordingly, and text box positions are not where they are wanted. Strategies: Watch more JavaFX tutorials.
- How tasks align with project timeline and goals: GUI make the UI pretty and instead of running in a terminal we have a proper window open with design. The timelines will be affected with the backend code.
- Support needed: teammates doing the integration with backend.

Chiv Inthera:

Task Done Last Week

- [Task 1]:
Description: Created interface and abstract classes. I spent time with the back-end team building this base structure to make sure the code is organized before starting the GUI as well as help with fixing bugs.

Time Spent: 5hr

Challenges: Making sure the interface code exactly matches the technical requirements in the assigned issues.

Milestone: Week 2

```
2 Sathya, 2 days ago | 1 author (Sathya)
3 public interface Authenticatable {
4     boolean authenticate (String password);
5 }
6

2 Sathya, 2 days ago | 1 author (Sathya)
3 < public interface Authenticatable {
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5 }
6
```

A screenshot of a Java code editor showing a warning message. The code editor displays a file named User.java with the following content:

```
src > service > User.java > ...
Click to add a breakpoint ; The declared package "models" does not match the exp
<
3 public abstract class User {
4     protected String id;
5     protected String password;
6 }
7
```

A tooltip window is open at the top of the code area, displaying the error message: "The declared package "models" does not match the expected package "service".

Task to be Done This Week

- [Task 1]:

Description: Start writing the actual JavaFX code to build the user interface based on the completed prototype.

Estimated Time: 15hr

Dependencies: The backend interfaces and abstract classes I finished this week.

Expected Challenges: Aligning UI elements like boxes and text fields correctly using JavaFX.

Alignment with project: This will move the project away from a terminal-only view to a proper windowed application.

Problems (Stuck)

- [Problem 1]: I haven't started the actual GUI code yet. I plan to start coding the JavaFX windows next week using the interfaces I finished this week as a guide

Poch Sathya

Task Done Last Week

- [Task 1]: Create abstract classes and interfaces
Description: Create all the potential classes and project structure for the whole project that make it work well and well-organized.
Time Spent: 20 minutes
Challenges: There is not difficult much in this part since it's just the project structure and empty classes but i need to know which class is essential and the purpose of each class.
Milestone: Week 12
- [Task 2]: Log-in page for Student
Description: for user to log in with username and password
Time Spent: 30 minutes
Challenges: log in with password not hiding, security issues. And also, some bug for example when log with name instead of username it works too
Milestone: Week 2
- [Task 3]: Log-in page for Teacher

Description: When a user should be using username and password and will be identified as a teacher or student and will be direct to a different home page.

Time Spent: 2h30mn

Challenges:

Milestone: Week 2

- [Task 4]: Home-Page and Class-page for Teacher and Student

Description: when teacher or student log in they should see courses they enrolled or course they teach

Time Spent:3h

Challenges:

Milestone: Week 2

Task to be Done This Week

- [Task 1]: Remove unused function, classes or add more features

Description: Remove some functions or classes that are unused so that our code will be less and easy to explain during the presentation and add more features that will enhance our application appearance and functionality.

Time Spent: 15h

Dependencies:

Challenges: It might need a lot of time to go through it, or there might be a lot of changes that are time consuming which delay creating GUI for the application.

Alignment: This aligns with the project issue and the millstone that are set to be done on Week 3.

- [Task 2]: Draw flowchart

Description: After the project is done, draw the flowchart on how the project works to help explain to the audience and to meet the project requirements.

Time Spent: 4h

Dependencies: Miro, a website that use to draw the flowchart together with teammates which is convenient for collaboration

Challenges: Time consuming and

Alignment: This aligns with the project issue and the millstone that are set to be done on Week 3.

Problems (Stuck)

- [Problem 1]: SHA-256 hashing is not working

Description: when entering the password to log in into the attendance dashboard the password is visible and our team want to hide the password when input the password for security purpose but now it's not working

Impact: The security of this application is not safe for users there might be

Step Taken: ask AI to fix the code but it's still not working.

Assistance Needed: Song Phengroth

Potential Solution: ask AI for help or ask teammates from another project team that have similar task to explain this concept

- [Problem 2]: The project design patter is messy

Description: Our plan is to follow singleton design pattern, but we don't have enough time to verify if our project design pattern is 100% correct or not so we just want to make the code works and get the task done

Impact: There might be a lot of bugs if we fix some part next week.

Step taken:

Assistance Needed: Song Phengroth

Potential Solution: Use the tools to check the design pattern and fix it. For example:

Code Snippet:

```
v Attendance marked successfully!

ATTENDANCE DASHBOARD

————— LOGIN —————
Username: student1
Password: pass123

v Login successful!
Welcome, Chiv Intera (STUDENT)

STUDENT HOME - MY COURSES

Your Enrolled Courses:
1. CS301 - Data Structures & Algorithms (Mon/Wed 10:00 AM) | Students: 2 | Lessons: 3 | Quizzes: 2 | Attendance: 66.7%
2. CS402 - Machine Learning (Tue/Thu 2:00 PM) | Students: 1 | Lessons: 2 | Quizzes: 1 | Attendance: 50.0%

0. Logout

Select a course (enter number): 1
```

```
package models;
import java.security.MessageDigest;
import java.security.NoSuchAlgorithmException;
import java.nio.charset.StandardCharsets;

/**
 * User entity class for authentication and role management
 * Supports both Student and Teacher roles with SHA-256 password hashing
 */
public class User { 7 usages 2 inheritance & Sathya
    private String userId; 3 usages
    private String username; 3 usages
    private String passwordHash; 3 usages
    private UserRole role; 5 usages
    private String fullName; 3 usages

    public enum UserRole { 7 usages & Sathya
        STUDENT, 2 usages
        TEACHER, 2 usages
    }

    public User(String userId, String username, String password, UserRole role, String fullName) { 2 usages & Sathya
        this.userId = userId;
        this.username = username;
        this.passwordHash = hashPassword(password);
        this.role = role;
        this.fullName = fullName;
    }

    /**
     * Hash password using SHA-256 algorithm
     * @param password Plain text password
     * @return Hashed password as hexadecimal string
     */
    public static String hashPassword(String password) { 4 usages & Sathya
        try {
            MessageDigest digest = MessageDigest.getInstance("SHA-256");
            byte[] encodedhash = digest.digest(password.getBytes(StandardCharsets.UTF_8));
            return bytesToHex(encodedhash);
        } catch (NoSuchAlgorithmException e) {
            throw new RuntimeException("SHA-256 algorithm not found", e);
        }
    }
}
```

Song Phengroth

Task Done Last Week

- [Task 1]: Login page for both teacher and students
Description: write code for teacher and student 's login page in java
Time Spent: 1hour and15mins
Challenges: I was stuck with implement the logic
Milestone: Week 2

- [Task 2]: Student attendance page
Description: Student can check attendance on that page by getting a password from the teacher, or they can scan the QR code.
Time Spent: 1hour and 40mins
Challenges: I was struggling to implement how students can put the code from the teacher.
Milestone: Week 2

- [Task 3]: Teacher attendance page
Description: Teacher can generate both password and QR code for students to check the attendance
Time Spent: 2hours 50mins
Challenges: How to generate both password and QR at the same time
Milestone: Week 2

Task to be Done This Week

- [Task 1]: Connect database with the code to store student and teacher information.
Description:
Time Spent: 10h
Dependencies: using Mysql , mysql connector
Challenges: might be challenging due to not familiar with Mysql
Alignment: This aligns with Week 2 milestones.

Problems (Stuck)

- [Problem 1]: Home page, Course page issue
Description: When leaving the course there's no option to leave directly only go back one page

Step Taken: none

Assistance Needed: Poch Sathya

Potential Solution: Let the user leave directly go to home page