COMP3122 Group Project

Group 17 User Manual

1. User Diagram

[Photo]

1. Preparations

For running the program, you are strongly recommended to use Microsoft Visual Studio Code. If you don’t have one, you can download it on their official website <https://code.visualstudio.com/> .

[Photo]

In order to run the program successfully, you are required to download all of the items mentioned in the “requirement.txt”. It includes the following items…

streamlit: For creating the Streamlit application.

requests: For making HTTP requests (e.g., to the GitHub API).

python-dotenv: For loading environment variables from a .env file.

plotly: For creating interactive plots and charts.

pymongo: For connecting to and interacting with a MongoDB database.

pandas: For data manipulation and analysis (e.g., creating DataFrames).

matplotlib: For creating static plots and charts (though you primarily use Plotly, it's imported).

[Photo]

To download all the items listed in the “requirement.txt”, you may enter the command “pip install -r requirement.txt” in the terminal.

A screenshot of a computer

AI-generated content may be incorrect.

Now, you should open the database server (MongoDB) of our system. Please go to the website <https://account.mongodb.com/account/login> and then sign in the system. Please use “ [comp3122group17@gmail.com](mailto:comp3122group17@gmail.com)” as the login email and “Dd@@12345678” as the password. (Since MongoDB plsstform requires Multi-Factor Authentication (MFA), please contact our team members for assistance in email [21075463D@connect.polyu.hk](mailto:21075463D@connect.polyu.hk) [NG Ming Hei], [22110089D@connect.polyu.hk](mailto:22110089D@connect.polyu.hk) [LAW Nok Him], [23021285d@connect.polyu.hk](mailto:23021285d@connect.polyu.hk) [WAN Hoi Nam], or [21080217d@connect.polyu.hk](mailto:21080217d@connect.polyu.hk) [HUNG Wai Hin].

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After logging in the system, please click the button “COMP3122\_...” and choose “Natalie's Org - 2025-03-26 Atlas” option.

A screenshot of a social media account

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Then choose the project “Project 0”.

A screenshot of a computer screen

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Click the button “Network Access” on the left side. Then, click the green button “+ADD IP ADDRESS” on the right corner. When you see the screenshot above, you should click the button “ALLOW ACCESS FROM ANYWHERE” and the button “Confirm”. Now, you should see your IP address on this page.

**Please do not close this page while running the program. A connection error might exist if you close this page.**

1. Login the system

[Photo]

Once you downloaded all the required items and, you may now run the program. You can enter the command “streamlit run login.py” in the terminal. Then you should see the system open in the browser. In the page, you should see the words “Connect Github account” and the button “Login with GitHub”.

[Photo]

Click the button and then you will be required to login your Github account. Please enter your username and password according to the instructions.

[Photo]

Now, you should enter the username and password. For testing purpose, you can enter “21000000D” as userID and “password1” as password. Click the button “Login” after it.

1. Details of the user

[Photo]

After logging in the system, you should be redirected to the User Profiles page. On this page, you should see your name, profile photo, NetID, role and email address.

1. Create Activities (Create Issue, Milestone)

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| A screenshot of a black box  AI-generated content may be incorrect. | A screenshot of a computer  AI-generated content may be incorrect. |
| Software | Github |

On this page, you can create a milestone, issue and they are connected to the Github account. For creating a milestone, you can be allowed to type the Milestone Title, Milestone Description, Due Date and Select Repository. For example, I typed “Perform User testing”, set the due date as “May 9, 2025” and choose “team 1” as the repository.

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| A screenshot of a black and white screen  AI-generated content may be incorrect. | A screenshot of a computer  AI-generated content may be incorrect. |
| System | Github |

Besides it, you can also create an issue here. You can type the issue title, issue body, and select the repository. For example, I typed “Testing121”, “Testing” and choose “Team 1” here. Then you can see the screenshot on the right when you login to the Github.

1. Project Activity (Show the records of each student, Issues, Pull Requests, Milestones)

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| System | Github |

As the teacher, you can also view the project activities in the system. By clicking “Project Activity”, you are required to select a repository. Then you are allowed to select a user and also which content (Issues, Pull Requests, Milestones) you want to view. For example, I want to see the Pull Requests processed by the student philberthung from group 1. Then I know he added a project Overview. If you click the green button “View Pull Request”, you will be redirected to the Github website to see his pull request.

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| System | Github |

For example, Now I want to see the issues created by the student Henryy219 from group 1, then I choose the correct options according to my wish. Now, you can see he created an issue with title “Group-17”, Created in 2025-04-02 and updated in 2025-04-02. The content is “創建者: 21000001D Group-17”. If you want to see it on Github, you can click the green button “View Issue” to do so.

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| System | Github |

For example, if I want to see the Milestones created by the group 1, then I should choose “g17group1” as the repository, “All” as the user and select “Milestones”. Then you can see all the milestones now. Again, you can click the green button “View Milestones” if you want to check it on Github.

1. Project Assignment (Link Up the project assignment and sign up, need to go classroom website to add assignment first)

[Photo]

Click the button “Project Assignment”, then you can see two buttons which are “Link New Assignment” and “View All Assignments” in this page.

[Photo]

Before linking up the assignment, you should visit GitHub Classroom <https://classroom.github.com/classrooms> to create an assignment first.

[Photo]

Then you can go back to our system and link up new assignment to the system, click the button “Link New Assignment” and “Fetch Classrooms”. Then you should be asked to choose a classroom. Click the button “Fetch Assignments for Selected Classroom” after selection. If an assignment exists in the classroom, you should be able to see the words “Found 1 assignments!” with green background. After it, you can choose the assignments and then the data and information of the assignments will be shown under the section “Current Assignments”.

[Photo]

In addition, you can also view all assignments. Click the button “View All Assignments” and then the system will show up all the assignment in this page.

1. Project Performance (Dashboards)

[Photo]

By clicking the button “Project Performance”, you should see the page of the performance for different groups. This page displays each group's performance metrics, including commit activity, total commits, and code additions/deletions by members. At the bottom of the page, you can find that how many activities counts per students, which student is the most and least active in the class. In addition, you can see both the number of students who accepted the assignment and those who completed submissions.

1. Close the system

[Photo]

After using the system, please select the button “Logout” on the left side to exit.

Appendix:

Tasks Distributions:

|  |  |
| --- | --- |
| Tasks | Name |
| Create Activities | Nok Him LAW |
| Details of User | Hoi Nam WAN |
| Project Activity | Wai Hin HUNG |
| Project Assignment | Ming Hei NG |
| Project Performance | Hoi Nam WAN, Wai Hin HUNG |

We declare that Generative AI tools have been used to prepare the submitted work. The Generative AI tools used and the manner in which they were used are as follows: The AI tool was utilized to assist in formulating ideas, providing suggestions, debugging our coding in our group project.