COMP3122 Group Project

Group 17 User Manual

1. User Diagram

A diagram of a company

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1. Preparations
   1. **Github URL**

The URL is : <https://github.com/philberthung/project>

* 1. **Download Microsoft Visual Studio Code**

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/> .

* 1. **Download Requirements**

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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).

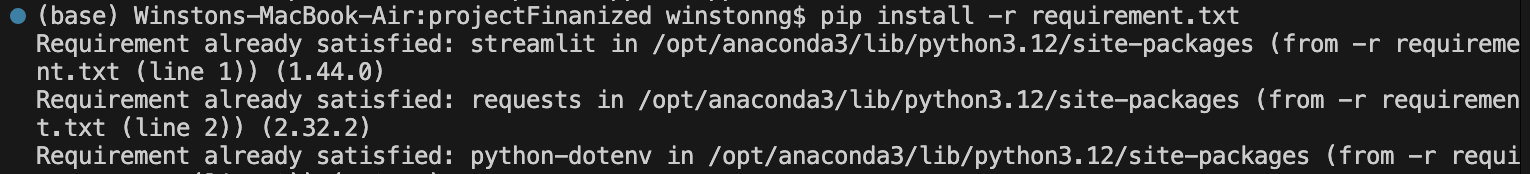
python-dotenv: For loading environment variables from a .env file.

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).



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

* 1. **Input the GITHUB\_TOKEN and CLIENT\_SECRET in file “.env”**

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Please click the file “.env” under folder “pages” and then input the following data.

GITHUB\_TOKEN="ghp\_iHPH0W3sNuqvONykNITMU7vjZZ40J137jQuD"

CLIENT\_SECRET="bf372b10e0e6064de4bf1c99db9f60deb02376a3"

* 1. **Open MongoDB on Your Browser**

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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

A screen shot of a computer

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A close-up of a sign

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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”.

A screen shot of a computer

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Click the button “Login with Github” and then you will be required to login your Github account. Please enter your username and password according to the instructions. Then you should see the words “GitHub Login successful!”.

A screenshot of a computer

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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

A cat with a white face

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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. Activity Creation
   1. **Create a Milestone**

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

On this page, you can create a milestone, issue and they are connected to the Github account. For creating a milestone, you can choose “Create Milestone” as the “Select Activity Type”. Now, you can 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.

* 1. **Create an Issue**

|  |  |
| --- | --- |
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| System | Github |

Besides it, you can also create an issue here. You can choose “Create Issue” as the “Select Activity Type”. 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. **Create** **a Pull Request**

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| System | Github |

In addition, you can also create a Pull Request here. You can choose “Create a Pull Request” as the “Select Activity Type”. You can type the Pull Request Title, body, Source Branch (head), Target Branch (base) and choose “Repository”. Finish by clicking the button “Create Pull Request”. Same as above, you can login to the Github to view the pull request.

1. View Activity
   1. **View Pull Requests**

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| System | Github |

As the teacher, you can also view the project activities in the system. By clicking “View Activities”, you are required to select a classroom, assignment and teams. 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 “changed”. If you click the green button “View Pull Request”, you will be redirected to the Github website to see his pull request.

* 1. **View Issues**

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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 “4/5/2025 - Henry\_UlTest”, Created in 2025-04-05 and updated in 2025-04-05. The content is “4/5/2025 - Henry\_UITest”. If you want to see it on Github, you can click the green button “View Issue” to do so.

* 1. **View Milestones**

|  |  |
| --- | --- |
|  | **A screenshot of a computer  AI-generated content may be incorrect.** |
| System | Github |

For example, if I want to see the Milestones created by Henryy219 from group 1, then I should select the user “Henryy219”, 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. Classroom Management

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

* 1. **View Assignment**

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

A screenshot of a web page

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Then you can go back to our system and link up new assignment to the system, click the button “Link New Assignment” and “Search Classrooms”. Then you should be asked to choose a classroom. 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 at the bottom. For each assignment, you can see green and blue buttons and they are directing you to the classroom repository and invitation link respectively.

* 1. View Classrooms

A screenshot of a classroom management

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In addition, you can also view all the classrooms. Click the button “View Classrooms” and then the system will show up all the classrooms in this page. When you click the classroom, you can view all the current assignments for that classroom. Same as above, For each assignment, you can see green and blue buttons and they are directing you to the classroom repository and invitation link respectively.

1. Project Activity Dashboard

A close up of a logo

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By clicking the button “Activity Dashboard”, you should see the page of the performance for different groups. There are two buttons at the front, which are “Dashboard” and “Download Report”.

* 1. Dashboard

A screenshot of a project

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You are required to choose the classroom, assignment, and the group here.

A screenshot of a graph

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Now, the page displays the records of issues, pull requests, milestones for each group and its members. In addition, you can see the group's performance metrics there, including the 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. Download Report

A screenshot of a phone

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When you click the button “Download Report”, you should see the button “Download HTML Report”. Click that button here.

A screenshot of a web page

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Then, your device should start downloading the Github Activity Report named “activity\_report.html”. In the report, you can find the Project Summary, the records of Issues, Milestones, commits and more data existed in Dashboard.

1. Exit the system

A screenshot of a phone

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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 |

AI Declaration of the Group Project:

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.