

# INTERNET WHITEBOARD

## USER MANUAL DOCUMENT

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## 1. General Information:

### 1.1 System Overview:

Technocrats Internet whiteboard is a large interactive display which contains large number of users and a set of whiteboard sheets. This provides communication between the customers and employ's using internet. This whiteboard contains a server, communication between the customer and employ will do by using restful API. Here the IP address of server is configurable so that it can be modified. This contains three types of accounts namely admin, employ, user.

Admin can create other type of accounts and maintain critical aspects. While employee can create customer configuring and also starting the session. Customer can join in the existing sessions. Once a user is created, then the user will receive a email notification to the registered mail in which login credentials and validity period of the user will be given. User can login using login credentials and then user is ready to start a new session in which user will be having different number of sheets and option like line, circle, text, eraser etc... And user will also have an option of clear which will clear history in the database. Employee will have an option undo, in which we can able see the previous state of the session. User account is maintained by using SQL db. Users don't have option of undoing and moving the shapes, but they can erase. One of the Participants is chosen as moderator. By default, this is the creator of the session, where creator can assign the role of moderator to any participant. Moderator can undo modifications the sheet, switch to another sheet and also lock the sheet. Each modification will have index, timestamp and other modifications. These modifications can be viewed by clicking and also by using playback option. This application is very user friendly.

## 2. GLOSSARY AND ABBREVIATIONS:

### 2.1 GLOSSARY:

The project organization for the Internet White Board has 10 WBS segments which are mentioned below, the work is divided based on WBS segments and members in the group are made responsible to one or multiple tasks. The alignment of members in the group to their respective tasks is listed as follows.

1. **Generating frontend white board Structure:** This basically means to create a simple white board including registration and login pages for the Admin, User and Employee.
2. **Building the backend white board session:** In this segment, the created white board is developed based on the resources and it requires time to be done.
3. **Sheet Management:** This deals with managing and modification of sheets and adds different tools and features to the sheets, different access is determined to user, employee and admin respectively.
4. **Server maintenance:** This segment deals with server linkup and ensuring every modification that has been made is regularly updated in the database.
5. **Security:** Security plays a prominent roll and it deals with the encryption of communication thus, one member in the group has been assigned to complete the task.
6. **Interaction between user-user and user-server:** This segment deals with communication between one user with other users and users with server.
7. **Debugging:** This segment deals with identifying the errors and fixing them, this also included fixing errors that have been reported by the users.
8. **Packaging:** The segment deals with the integration and packaging of different modules into the system.
9. **Testing:** Testing is expected to be wide and crucial, every member of the group is expected to perform each task individually and the whole package is tested by the group members accordingly.

10. **Documentation:** This segment deals with all the documentations needed that are user document and installation document

## 2.2 ABBREVIATIONS

1. **IP Address:** It is known as Internet Protocol Address. It is a unique number assigned to each system which are connected in a Network.
2. **SQL:** Standard Queuing Language. It is a special purpose language which is used to manage related data.
3. **GUI:** Graphical User Interface. It enables the user to interact with the system through visual indicators.
4. **RESTful API:** Representational State Transfer (REST) is an architectural style that specifies constraints, such as the uniform interface, that if applied to a web service induce desirable properties, such as performance, scalability, and modifiability, that enable services to work best on the Web. API is Application Programmable Interface.
5. **FLASK:** It is an implementation of the web brows able APIs like Django REST framework. It gives proper content negotiated responses. It also provides smart request parsing. We can start building kick-ass web brows able APIs using FLASK.
6. **PyMySQL:** PyMySQL is a database connector for Python programming language libraries and its used to enable Python programs to talk to a MySQL server [2]
7. **MySQL dB:** It's having same functionality as PyMySQL [2]
8. **Timestamp:** It is considered as a series of characters or encoded information that identify the occurrence of an event. Mostly expressed based on a calendar year.
9. **Python Tkinter:** Tkinter is one of the standard Pythons Graphical User Interface(GUI) package. [3]
10. **PHP:** Hyper Text Pre-processor is a server scripting programming language that is used for making dynamic and user interactive web based pages.

## 3. SYSTEM SUMMARY:

System Summary section gives a general overview of the system. This summary outlines the uses of the system's hardware and software requirements.

### 3.1 System hardware requirements:

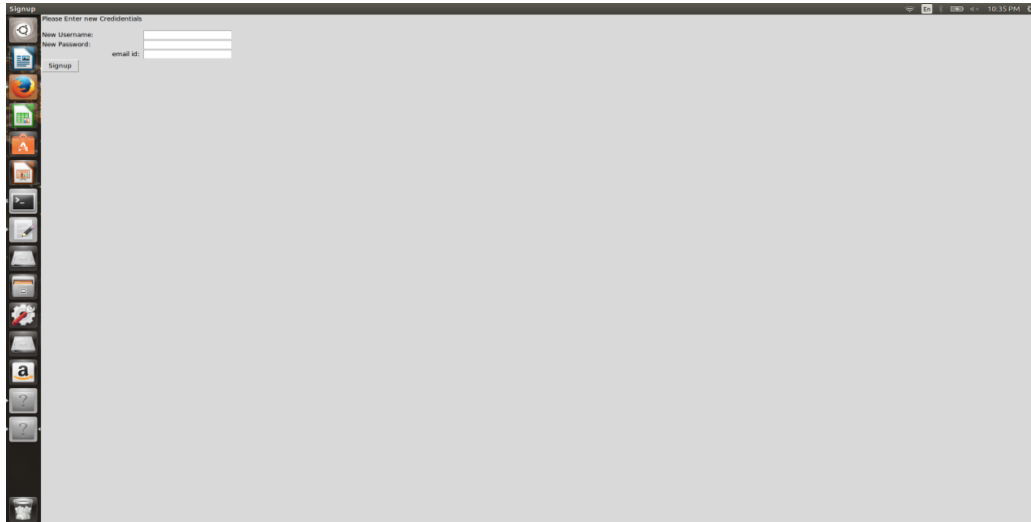
- Windows / Ubuntu / MAC operating systems
- 32 / 64 - bit processor
- Internet Access
- Wi-Fi (for connection)

### 3.2 System software requirements:

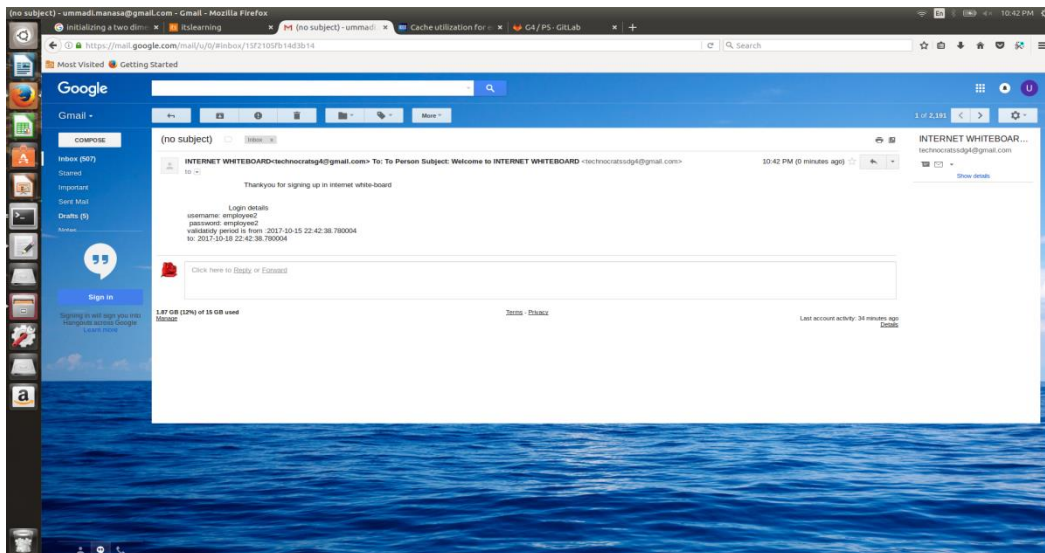
- Any web browser
- Python application
- Source code
- SQL DB

#### 4. INSTALLATION AND CONFIGURATION:

- Install Python application
- Source code files are copied to docs folder in python, where it is installed
- A database setup is required to run the application.
- Peers are connected to the same server using Wi-Fi
- Open web browser
- Open the Internet Whiteboard application
- Then you will find registration page as below



- After registering you will receive a mail to the registered e-mail id.

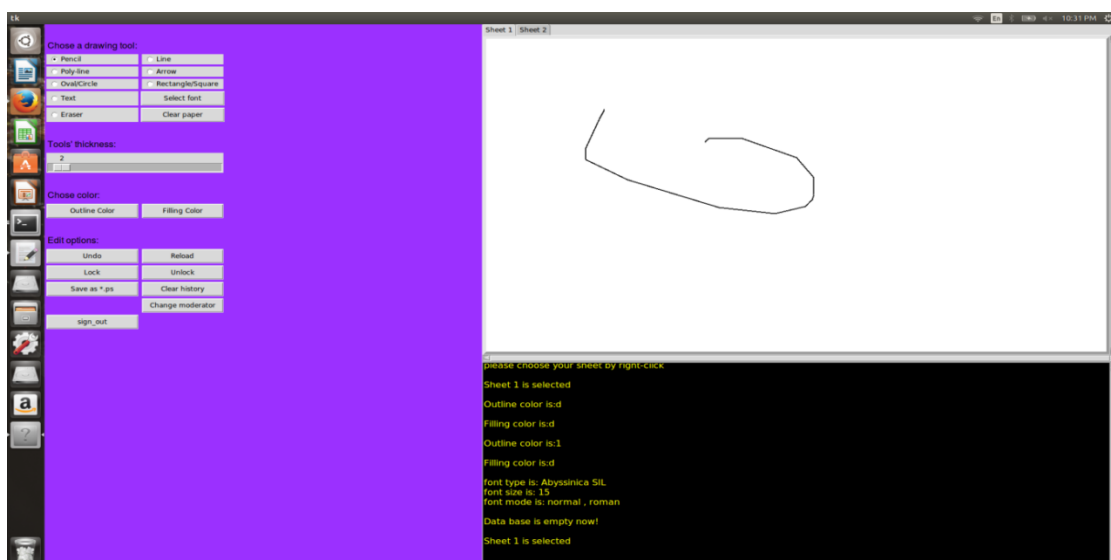


- Now you are ready to use the application
- Login to the user page using login credentials,

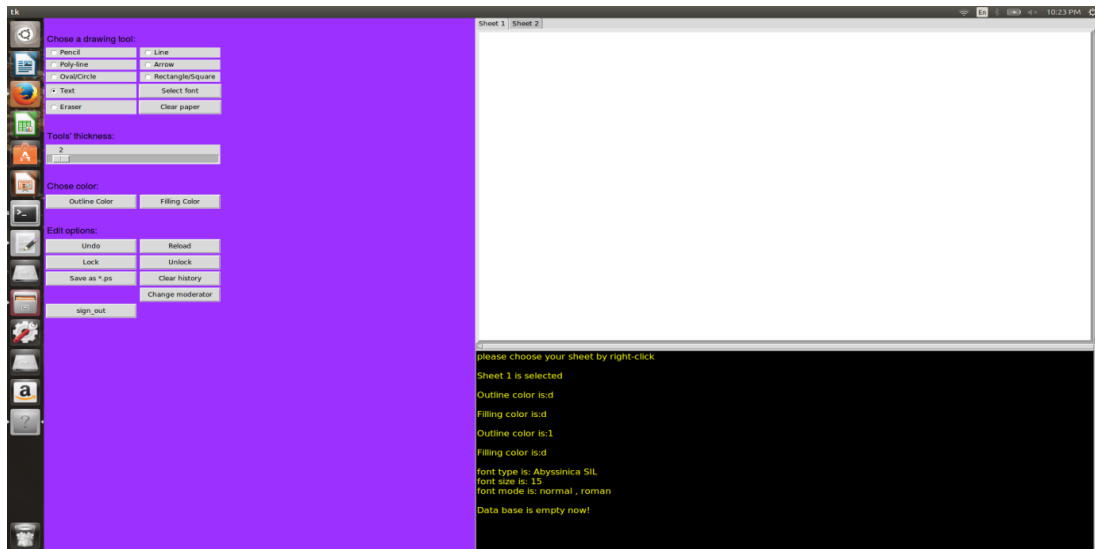
Login page will be seen as below fig.



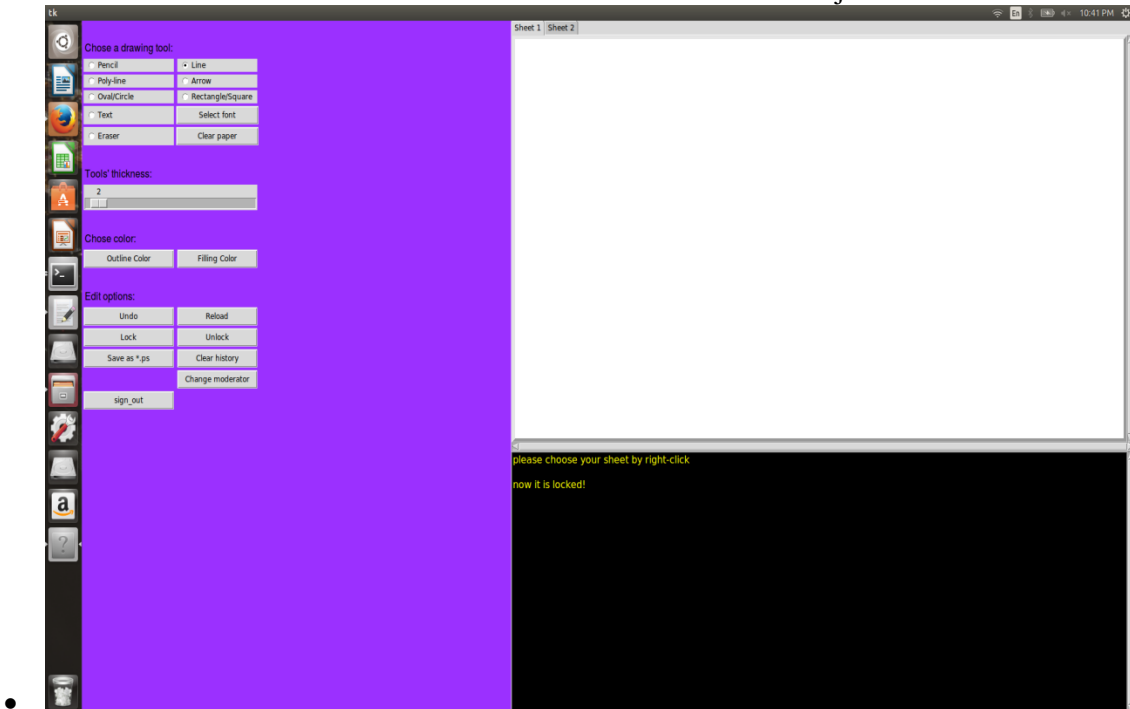
- One of the participants is chosen as moderator.
- Now moderator can start a session. Moderator will have a option of line, pencil, circle eraser etc...also user can select the thickness level, outline colour and filling colour.



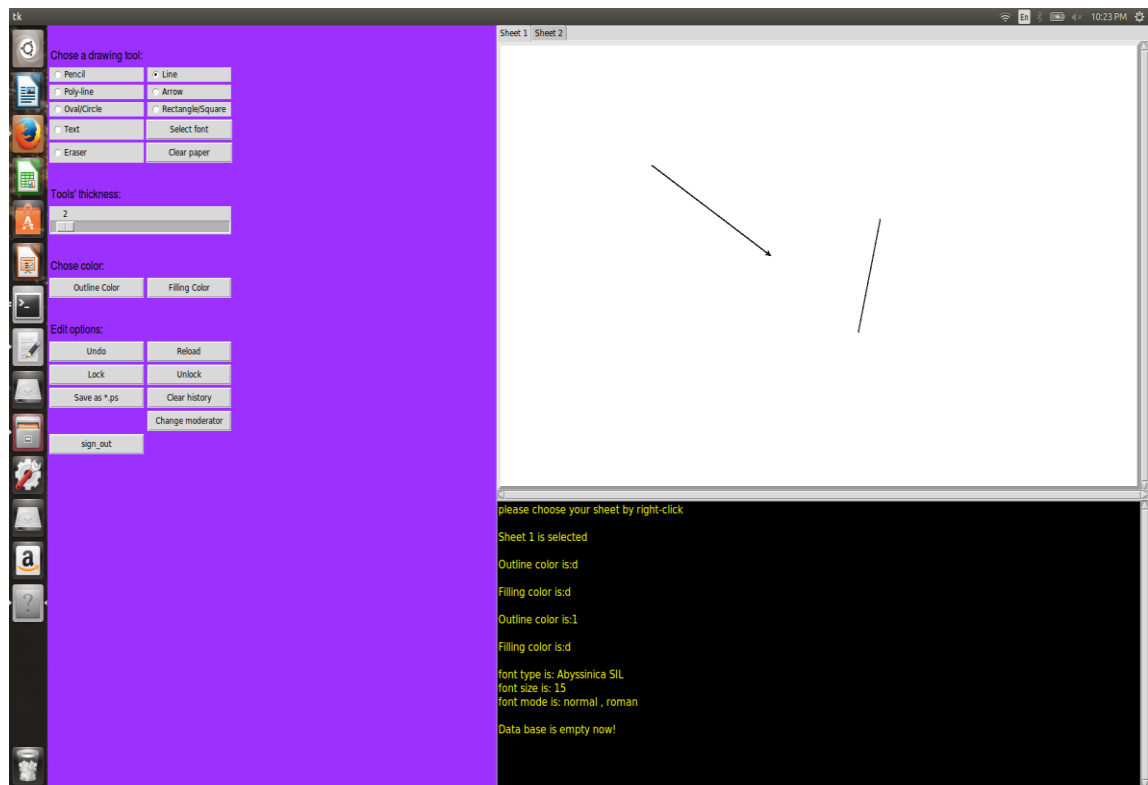
- All the sheets used by user will be saved in a database. User will also have a option to clear the data in the database.



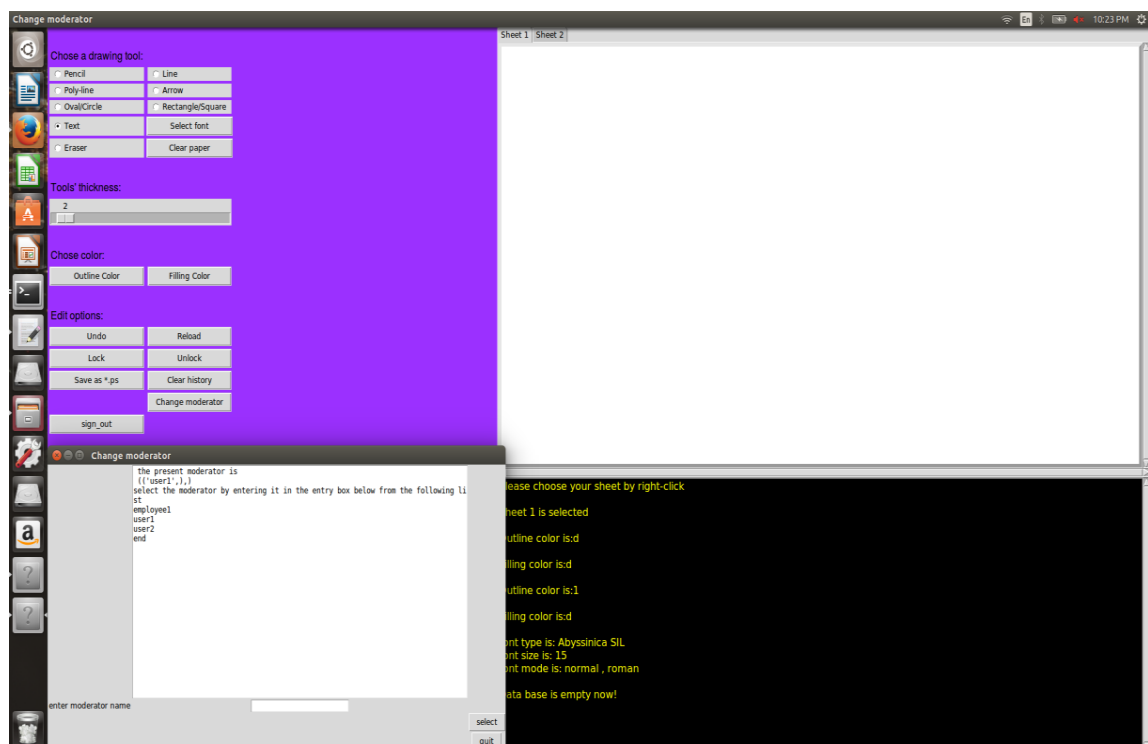
- A moderator can lock and unlock the sheet. Admin can also do this job.



- Undo operation is done by employee.



- Admin can change the moderator in the session to continue the session.



- All the actions done in the session will be stored in the database.

manasa@manasa-HP-Pavilion-Notebook -

- When the participants clicks on sign out button on the sheet, the current session is saved and redirected to the login page.

