# **E BOARD**

# **ACCEPTANCE TEST PLAN**

Version - 3.0

Date - 2016/05/22

# Team-ELECTRO BLITZ

# **PROJECT MEMBERS**

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### 1. PREFACE:

The main aim of the project is to develop a basic Internet Whiteboard, which facilitates communication between employee of the consultancy (ConTech) and its customers. It helps them to work together, despite being far away. This is version 3.1 of the Acceptance test plan document.

In the remainder of the document, all the modules of the internet whiteboard are described in detail and the acceptance test plan of each module has been made.

#### 1.1 LOG MODIFICATIONS:

Release version 3.0 on 2016/05/22

- Added test plans only for user requirements.
- Added test plan for replication of sheets(section 3.9), arrow(section 3.11), polyline (section 3.14)
- Added test plan for bold & italic functionality (section 3.23), list of modifications (section 3.28)
- Modified test plan RESTful API(section 3.33)
- Added test plan for reconfigurable IP(section 3.35)

### Release version 2.0 on 2016/05/15

- Tests plans are included for each and every aspect
- Test plan for section 3.1 is divided into many individual tests
- Added test plan for Admin privileges (section 4.3), Employee privileges (section 4.4), Customer privileges (section 4.5), Encryption of web server (section 4.6), validity period (section 4.7), acknowledgement via email (section 4.8)
- Added test plan for encryption of MySQL (section 4.9), RESTful API (section 4.10), debugging (section 4.11), authentication (section 4.12), list of modifications (section 4.13)

Release version 1.0 on 2016/05/08

• Initial release

# 2. GLOSSARY AND ABBREVIATIONS

**ConTech** Consulting firm (Costumer)

**DB** Database

**GUI** Graphical User Interface

IP Internet Protocol

MySQL Open-Source relational database management system

**Python** Programming Language

**PDF** Portable document format

**SHA1** Cryptographic Hash Function

**Timestamp** Indicates Date and Time in a standard format

## 3. ACCEPTANCE TEST PLAN

The following tests are performed

### 3.1

Test: TEST\_FE21

Purpose: Testing unlimited number of users.

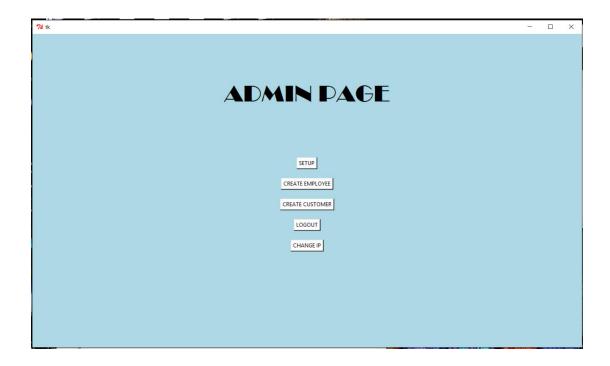
Requirements: REQ\_USR1

**Environment:** The server is setup and the whiteboard application is run.

## Operation:

• On the login page, give login details of Admin.

- Once Admin logs in, you can find buttons like create employee and create customer on Admin page.
- Click on the Create employee/customer button, type username and email ID and click on the ok button.
- Employee can also create customers by logging in with employee details.
- Once Employee logs in, click on Create customer button to create customers.



# **Expected result:**

You find the labels username and mail ID with entry boxes. A registration success dialog box appears upon filling of details and clicking ok button as shown in Figure 2

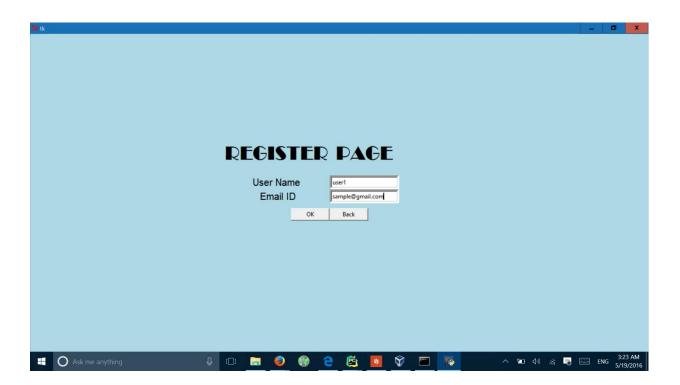


Figure 1 Registration Page

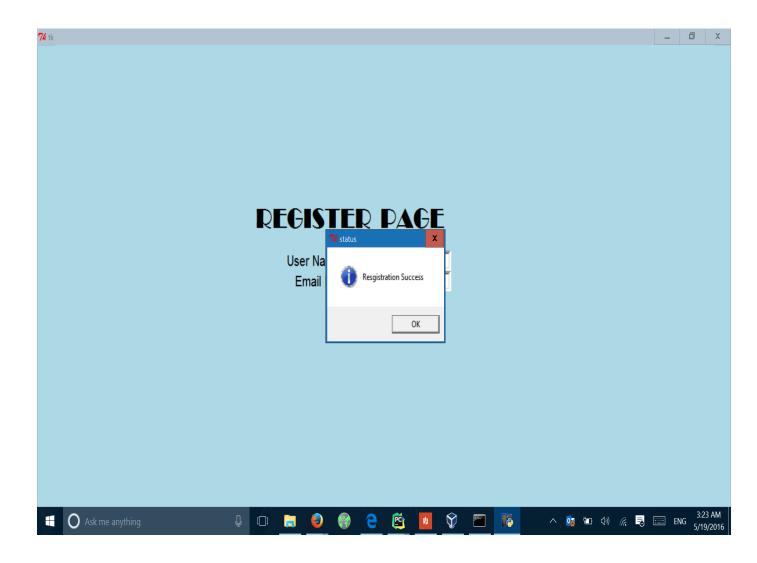


Figure 2 Registration success dialog box
Result:
Comment:

**Test:** TEST\_BE3

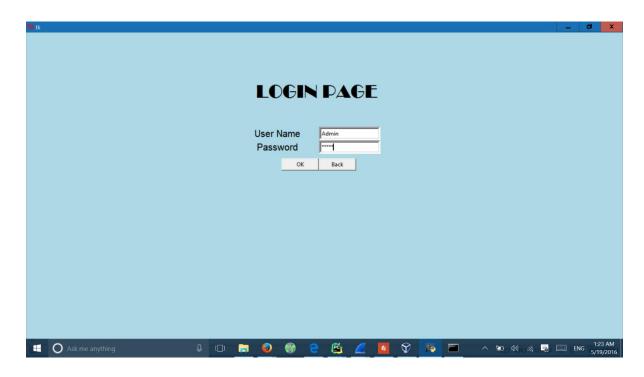
Purpose: To test Admin privileges.

Requirements: REQ\_USR2

**Environment:** The server is setup and the whiteboard application is run.

# Operation:

- Click on the Login button on home page and give username as Admin and password as Admin on the login page.
- Once Admin logs in, you can find options like SETUP, Create Employee, Create Customer, Logout, Change IP.



# **Expected result:**

Type Login details of Admin, you will be finding the options shown in Figure 3

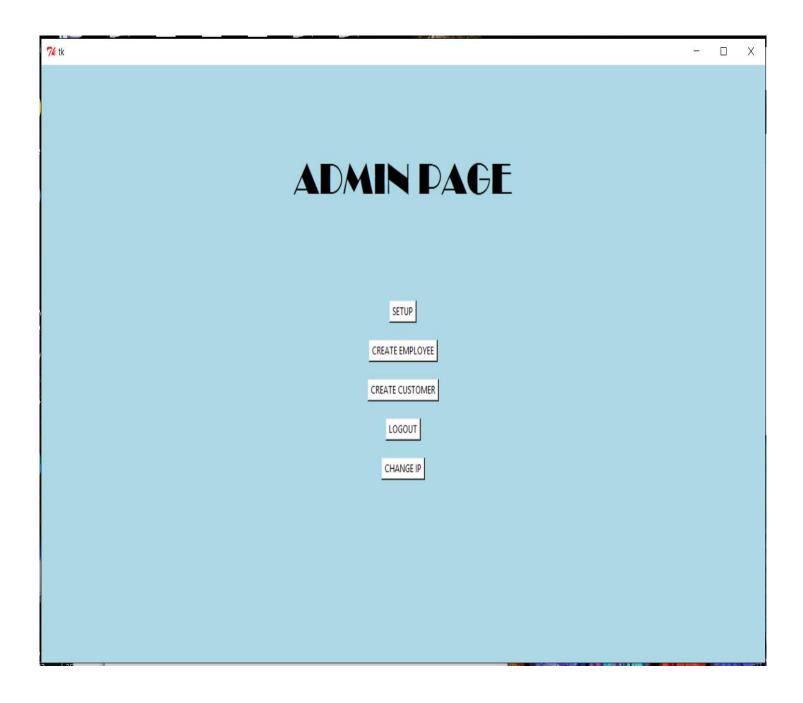


Figure 3 Admin page

Result:

Test: TEST\_BE4

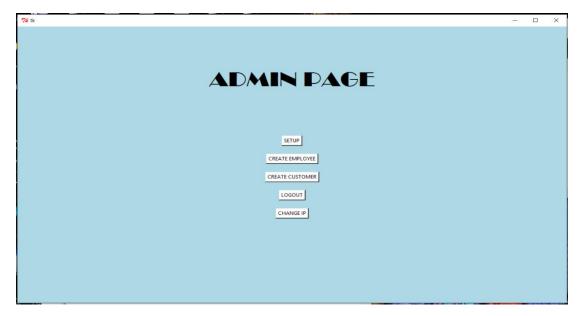
Purpose: To test creation of Employee account.

Requirements: REQ USR3

**Environment:** The server is setup and the whiteboard application is run.

# Operation:

- On the login page, give login details of Admin.
- Once Admin Logs in, you can find buttons like create employee and create customer on Admin page.
- Click on the Create Employee button shown on the Admin page to create Employee.
- Logout from the Admin account.



 Once the Employee account is created, type username and passcode on the login page. Upon login you will find options like start session, create customers and logout.

## **Expected result:**

Once Employee logs in with his details, he can find options like Start session, Create Customer, Logout which are shown in Figure 4

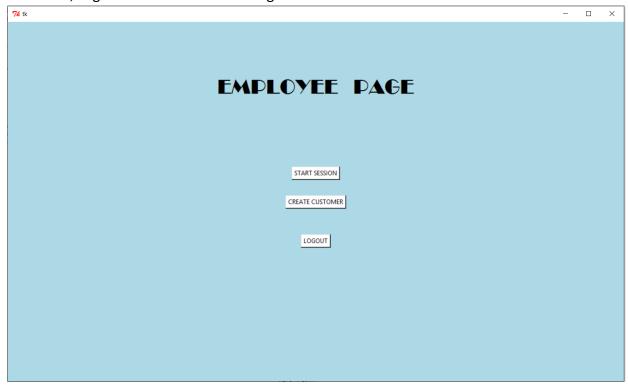


Figure 4 Employee Page

Result:

### 3.4

**Test:** TEST\_BE5

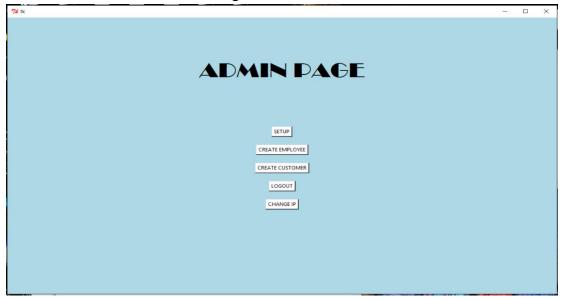
**Purpose:** To test creation of customer account.

Requirements: REQ\_USR4

**Environment:** The server is setup and the whiteboard application is run.

# Operation:

- On the login page, give login details of Admin.
- Once Admin Logs in, you can find buttons like create employee and create customer on Admin page.
- Click on the Create customer, type username and email ID.
- Employee can also create customers by logging in with employee details and click on create customer button for creating customers.



# **Expected result:**

A registration success dialog box appears upon click of ok button as shown in Figure 6

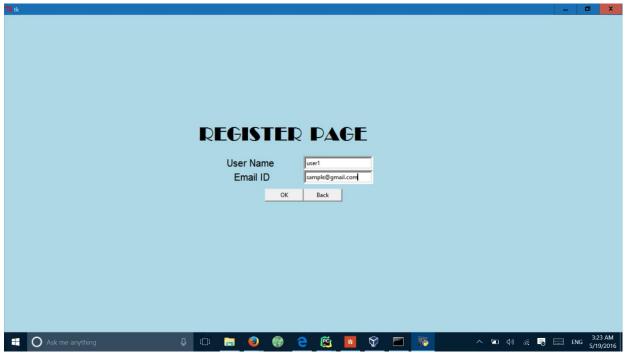


Figure 5 Registration page

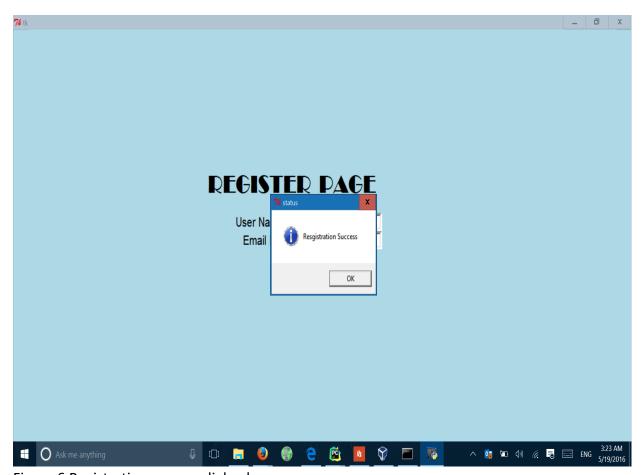


Figure 6 Registration success dialog box

Result:
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Comment:

3.5

Test: TEST\_BE7

Purpose: Validity period of an account

Requirements: REQ\_USR5

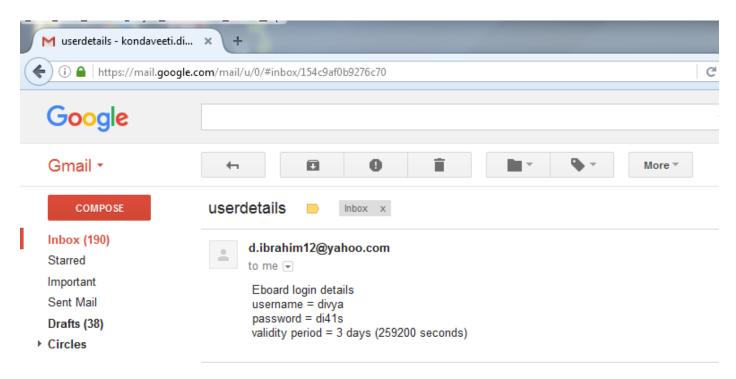
# **Environment**:

The server is setup and the application is installed and run. A MySQL instance is also run in parallel.

## Operation:

Employee creates the customer account giving the username and corresponding mail id.

**Expected Result:** Account has 3 days of validity period.



#### Result:

### Comment

3.6

Test: TEST\_BE12

**Purpose:** Authentication

Requirements: REQ USR6

**Environment:** The server is setup and the application is installed and run. A MySQL instance is also run in parallel.

### Operation:

• The tester registers by specifying account credentials and logs in.

- Given credentials are checked with data stored in the database.
- If the credentials are matched whiteboard application is opened.

**Expected result:** If the credentials are correct user gets access to the whiteboard. If the credentials are wrong an error will occur.



**Result:** 

**Comment:** 

3.7

Test: TEST\_BE8

**Purpose:** Acknowledgement via email

Requirements: REQ\_USR7

### **Environment:**

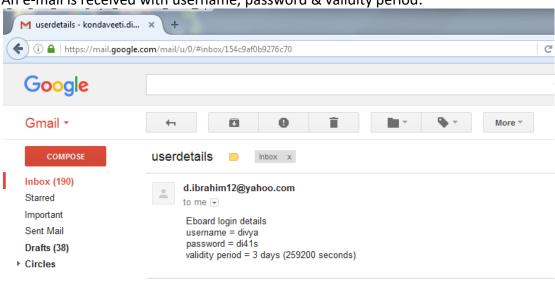
The server is setup and the application is installed and run. A MySQL instance is also run in parallel.

## **Operation:**

Employee creates the customer account by giving the username and mail id.

## **Expected Result:**

An e-mail is received with username, password & validity period.



### Result:

#### Comment

### 3.8

Test: TEST FE13

Purpose: To test Sheets selection from the menu.

Requirements: REQ\_USR8

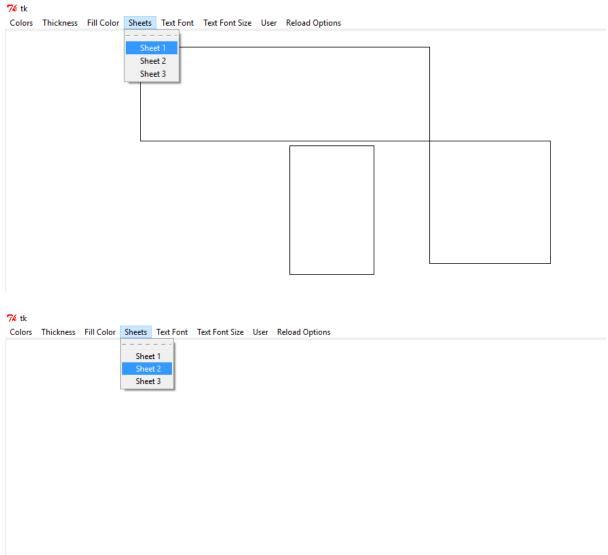
**Environment:** The server is setup and the whiteboard application is run.

# Operation:

- Login to the eboard using the credentials received through mail.
- If the credentials match and access to eboard is granted, then eboard canvas appears on the screen.

Select one of the three sheets available from the Sheet sub-menu.

# **Expected result:** Sheet is changed.



**Result:** 

Test: TEST\_FE22

**Purpose:** To test Replication of events on sheets.

Requirements: REQ\_USR9

**Environment:** The server is setup and the whiteboard application is run.

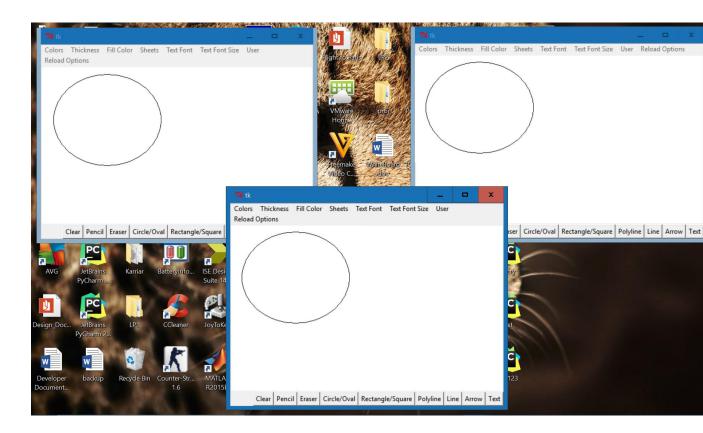
# Operation:

• Log in through username and password.

• Do any modification on the canvas of one user.

# **Expected Results:**

Modifications done on one canvas are replicated on other canvas.



## **Result:**

### Comment

### 3.10

Test: TEST\_FE3

**Purpose:** To Test Line operation.

Requirements: REQ\_USR10

**Environment:** The server is setup and the whiteboard application is run.

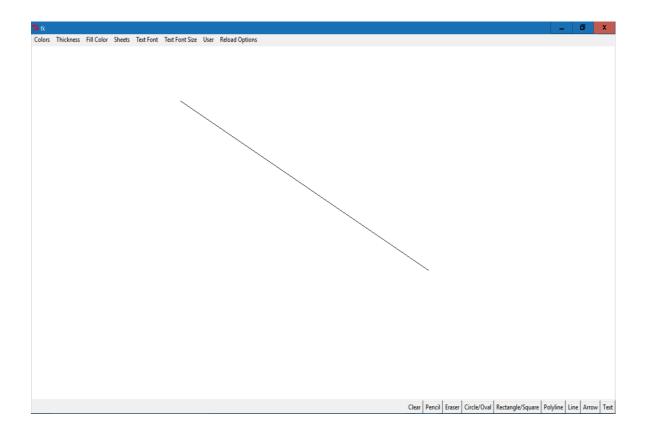
## Operation:

• Login to the eboard using the credentials received through mail.

- If the credentials match and access to eboard is granted, then eboard canvas appears on the screen.
- Choose line tool by clicking on line button.
- Drag the mouse on the canvas to the respective position where the line has to be drawn.

# **Expected Results:**

A line shall be drawn on the canvas.



Resu	ult:
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## **Comments:**

## 3.11

**Test:** TEST\_FE20

**Purpose:** To test an arrow on whiteboard.

Requirements: REQ\_USR11

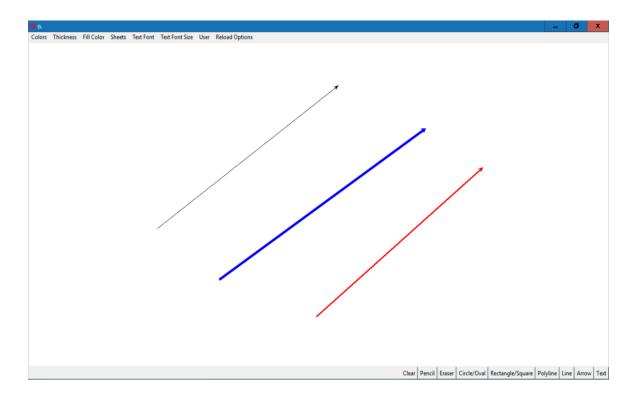
**Environment:** The server is setup and the whiteboard application is run.

# Operation:

- Login to the eboard using the credentials received through mail.
- If the credentials match and access to eboard is granted, then eboard canvas appears on the screen.
- Choose arrow tool by clicking on arrow button.

# **Expected Results:**

An arrow is drawn.



Result:

#### 3.12

Test: TEST\_FE5

**Purpose:** To test if circle/oval is working in the whiteboard.

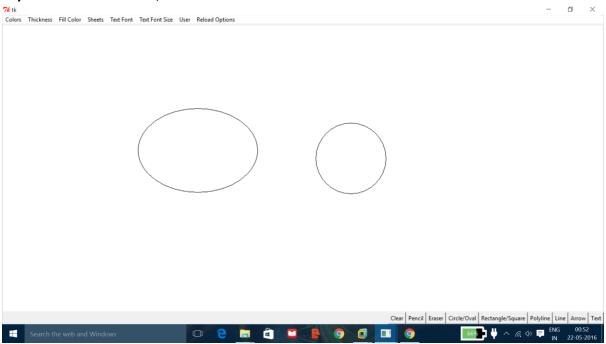
**Requirements:** REQ\_USR12

**Environment:** The server is setup and the whiteboard application is run.

## Operation:

- Login to the eboard using the credentials received through mail.
- If the credentials match and access to eboard is granted, then eboard canvas appears on the screen.
- Choose circle/oval tool by clicking on circle/oval button.
- Click on the canvas where u want the circle/oval to start. Drag the cricle/oval till where you want to end it.

## **Expected Results:** circle/oval is drawn on the sheet.



### **Result:**

### **Comment:**

### 3.13

Test: TEST\_FE6

**Purpose:** To test if rectangle/square is working in the whiteboard.

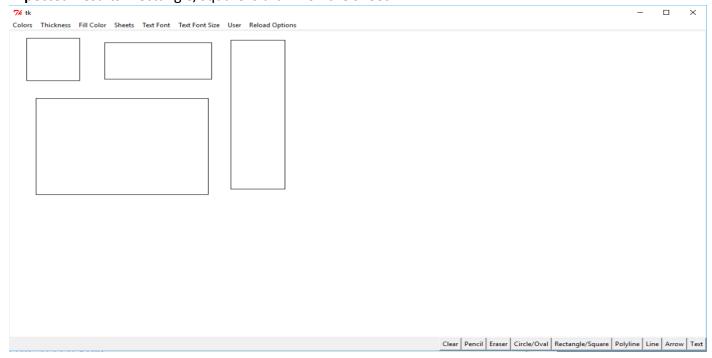
Requirements: REQ\_USR14

**Environment:** The server is setup and the whiteboard application is run.

## Operation:

- Login to the eboard using the credentials received through mail.
- If the credentials match and access to eboard is granted, then eboard canvas appears on the screen.
  - Choose Rectagle/Square tool by clicking on Rectangle/Square button.
- Left click on the mouse and drag diagonally to get a Rectangle/Square of desired dimensions.

## **Expected Results:** Rectangle/Square is drawn on the sheet.



#### 3.14

**Test:** TEST\_FE4

**Purpose:** To test if polyline is working in the whiteboard.

Requirements: REQ\_USR16

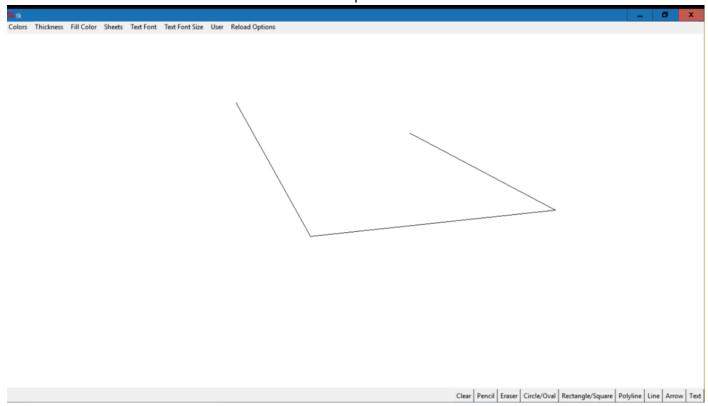
**Environment:** The server is setup and the whiteboard application is run.

## Operation:

- Login to the eboard using the credentials received through mail.
- If the credentials match and access to eboard is granted, then eboard canvas appears on the screen.
- Choose polyline tool by clicking on polyline button.
- Draw line by dragging the mouse.
- Left click at any location on the sheet.

# **Expected Results:**

A line is drawn between selected location and end of previous line.



#### 3.15

Test: TEST\_FE8

**Purpose:** Testing text.

Requirements: REQ\_USR17

**Environment:** The server is setup and the whiteboard application is run.

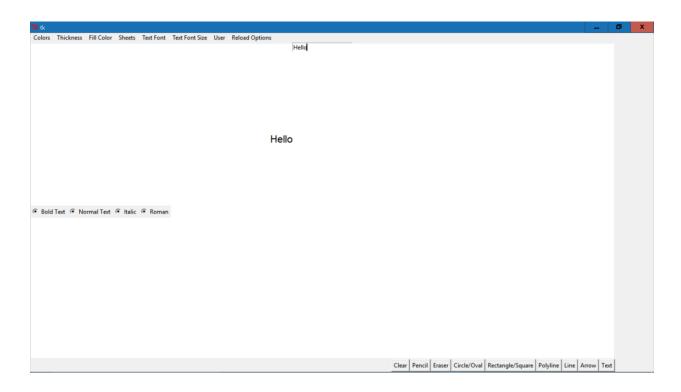
# **Operation:**

• Login to the eboard using the credentials received through mail.

- If the credentials match and access to eboard is granted, then eboard canvas appears on the screen.
- Choose text tool by clicking on text button.
- Type the text in the text box which appears after clicking on text.
- Click on the canvas where you wish the text to be placed.

• For the textbox to disappear right click anywhere on the screen.

**Expected result:** The text appears on the sheet.



## **Result:**

### **Comment:**

### 3.16

**Test:** TEST\_FE2

**Purpose:** Testing Eraser.

Requirements: REQ\_USR18

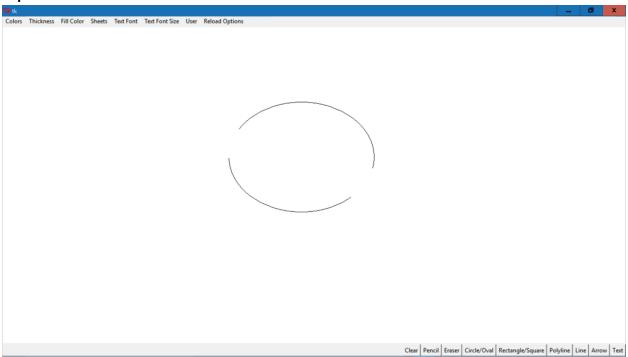
**Environment:** The server is setup and the whiteboard application is run.

# Operation:

- Login to the eboard using the credentials received through mail.
- If the credentials match and access to eboard is granted, then eboard canvas appears on the screen.
- Choose any tool from tool menu by clicking on the respective tool.

- Draw on the canvas after selecting any tool by dragging the mouse.
- Select eraser by clicking on icon eraser from the tool menu.
- Drag the mouse on the canvas to the respective position where erasing has to be done.

**Expected result:** The modifications on canvas shall be erased.



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### **Comment:**

## 3.17

Test: TEST\_FE1

**Purpose:** Testing free drawing tool (pencil).

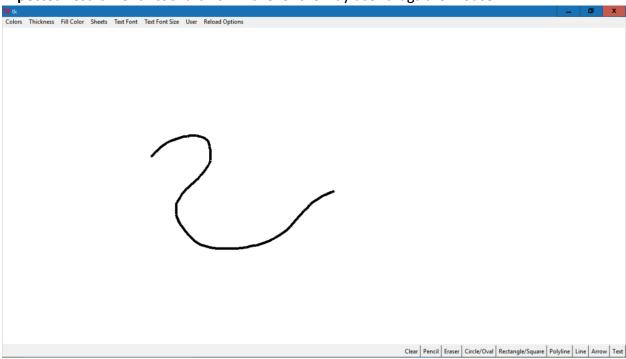
Requirements: REQ\_USR19

**Environment:** The server is setup and the whiteboard application is run.

# **Operation:**

- Login to the eboard using the credentials received through mail.
- If the credentials match and access to eboard is granted, then eboard canvas appears on the screen.
- Choose pencil tool by clicking on pencil button.
- Draw on the sheet by dragging mouse.

**Expected result:** Pencil tool draws whichever the way user drags the mouse.



**Result:** 

Comment:

3.19

Test: TEST FE10

**Purpose:** Testing thickness.

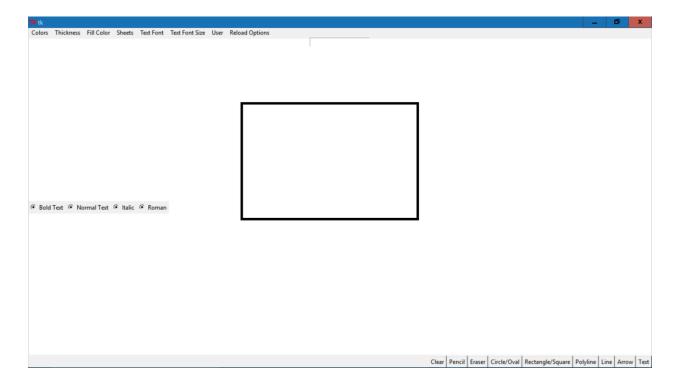
Requirements: REQ\_USR20

**Environment:** The server is setup and the whiteboard application is run.

## Operation:

- Login to the eboard using the credentials received through mail.
- If the credentials match and access to eboard is granted, then eboard canvas appears on the screen.
- Choose any tool from the tool menu from circle, rectangle, pencil, line, polyline, arrow and text by clicking on the respective tool.
- Vary thickness by selecting thickness submenu in the menu bar.
- Draw on the sheet.

**Expected result:** The tool of the selected thickness is drawn on the sheet.



Resu	ılt:

Test: TEST\_FE11

**Purpose:** Testing color.

Requirements: REQ\_USR21

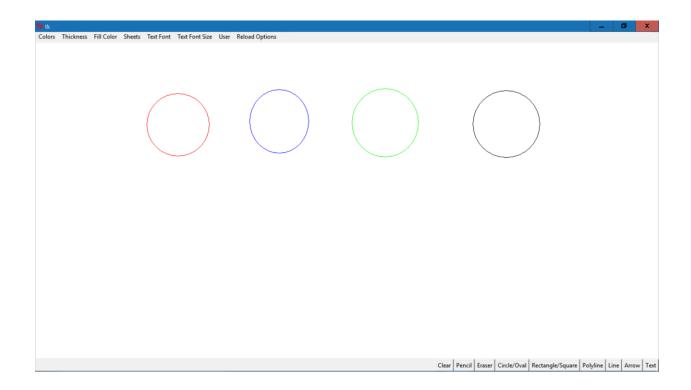
**Environment:** The server is setup and the whiteboard application is run.

## Operation:

• Login to the eboard using the credentials received through mail.

- If the credentials match and access to eboard is granted, then eboard canvas appears on the screen.
- Choose any tool from the tool menu from circle, rectangle, pencil, line, polyline, arrow and text by clicking on the respective tool.
- vary color by selecting color submenu in the menubar.
- Draw on the sheet.

**Expected result:** The tool with selected color is drawn on the sheet .For a Rectangle and a circle, outline color is drawn on sheet.



Result:
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# **Comment:**

# 3.20

Test: TEST\_FE12

**Purpose:** Testing Color Fill.

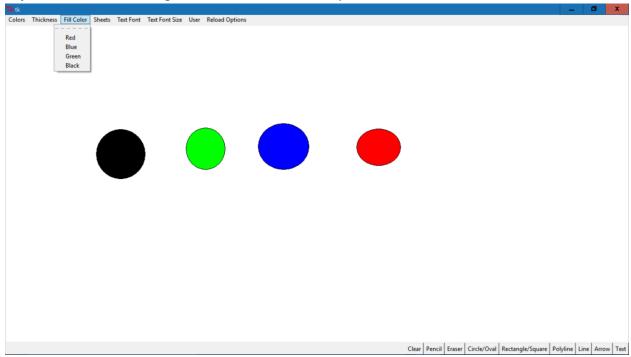
Requirements: REQ\_USR22

**Environment:** The server is setup and the whiteboard application is run.

### Operation:

- Login to the eboard using the credentials received through mail.
- If the credentials match and access to eboard is granted, then eboard canvas appears on the screen.
- Choose any tool from circle/oval, rectangle/square by clicking on the respective tool.
- Vary color fill by selecting color fill submenu in the menu bar.
- Draw on the canvas by dragging the mouse of the desired dimensions.

**Expected result :** Rectangle/circle is drawn with respected color fill.



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### 3.21

Test: TEST\_FE14

**Purpose:** Testing Font Size.

Requirements: REQ\_USR23

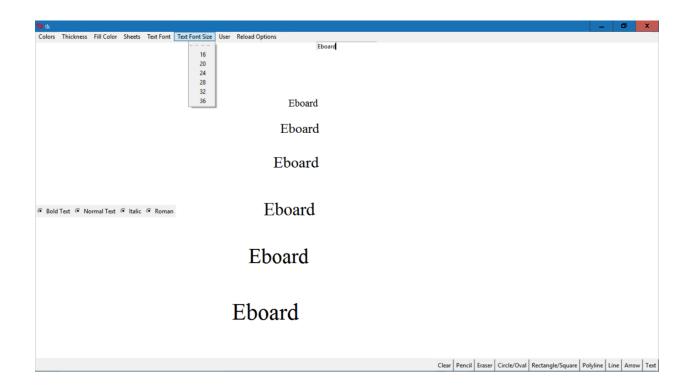
**Environment:** The server is setup and the whiteboard application is run.

## Operation:

• Login to the eboard using the credentials received through mail.

- If the credentials match and access to eboard is granted, then eboard canvas appears on the screen.
- Choose text tool by clicking on it from the tool menu.
- Type the text in the text box which appears after clicking on text.
- Then, on the menu bar, select Font size by clicking on it and choose any size by clicking on the available font sizes on display.
- Click on the sheet where you wish the text to be placed.

**Expected result:** The text of the selected Font size is written on the sheet.



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## **Comment:**

# 3.22

Test: TEST\_FE15

**Purpose:** Testing Font style.

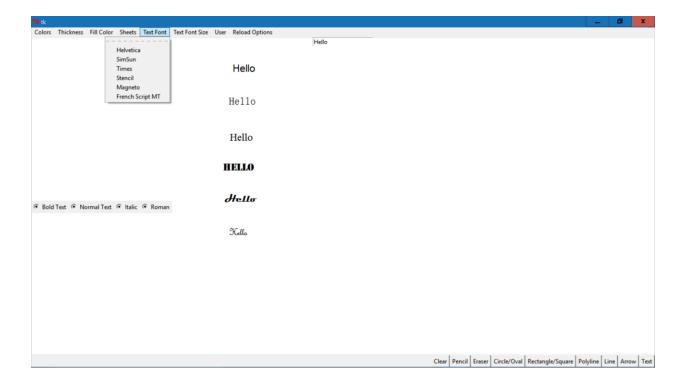
Requirements: REQ\_USR24

**Environment:** The server is setup and the whiteboard application is run.

# Operation:

- Login to the eboard using the credentials received through mail.
- If the credentials match and access to eboard is granted, then eboard canvas appears on the screen.
- Choose text tool by clicking on it from the tool menu.
- Type the text in the text box which appears after clicking on text.
- Then, on the menu bar, select Text font by clicking on it and choose any style by clicking on the available text fonts on display.
- Click on the sheet where you wish the text to be placed.

**Expected result:** The text of the selected Font style is written on sheet.



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**Test:** TEST\_FE16

Purpose: To test Bold and Italic functionality.

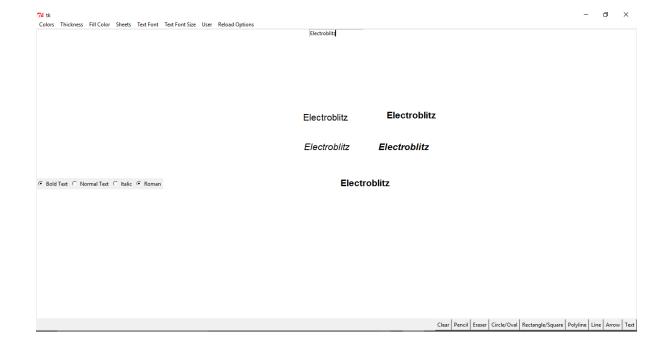
Requirements: REQ\_USR25

**Environment:** The server is set up and whiteboard application is run.

#### Operation:

- When the user clicks on text button you can see radio buttons for bold text, Normal text, Italic text, Roman text.
- Click on the bold radio button and enter the text to appear in bold on the whiteboard.
- Click on the italic radio button for the text to appear in italics on the whiteboard.
- Click on both bold and radio button for the text to appear in bold and italics on the whiteboard.
- Click on normal text radio button to remove the bold function.
- Click on roman radio button to remove the italic function.

**Expected result:** If you click on text button bold text, normal text, italics, roman options should be seen. If the bold text radio button is selected text should appear in bold, if the normal text radio button is selected bold text is changed to normal. If the italic radio button is selected text should appear in italics, if the roman radio button is selected italic text should be changed to roman.



**Comment:** 

3.24

Test: TEST\_FE24

Purpose: Moderator

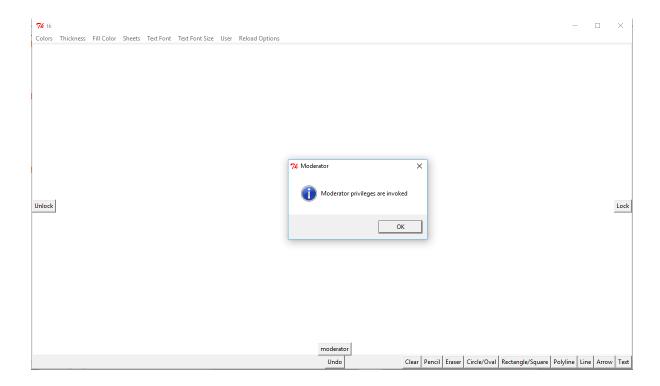
Requirements: REQ\_USR26

**Environment:** The server is set up and whiteboard application is run.

Operation:

- Create an Employee.
- Employee logs in with obtained credentials and starts the session by clicking on start session button.

**Expected result:** Moderator privileges invoked dialog box appears and functions like undo, lock, unlock appears on the screen.



Comment:

3.25

Test: TEST\_FE19

**Purpose:** To test the change of the moderator role.

Requirements: REQ USR27

**Environment:** The server is set up and whiteboard application is run. Employee creates a whiteboard session and customers joins the session.

#### **Operation:**

- Moderator should click on change moderator button and a list of users in the session is shown with a radio button.
- Moderator should click on the radio button of the user whom he wants to make the moderator and press OK.
- Moderator role is now assigned to the selected user and the creator of the session loses his moderator privileges.

**Expected result:** Moderator role shall be assigned to selected user.

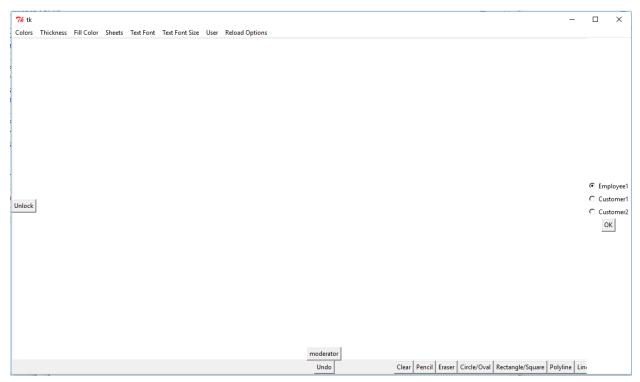


Fig 3.27

# **Comment:**

# 3.26

Test: TEST\_FE17

Purpose: Locking of access to sheets.

Requirements: REQ\_USR28

**Environment:** The server is set up and whiteboard application is run. Employee creates a whiteboard session and customers joins the session.

# Operation:

• Moderator should click on the lock button.

**Expected result:** Remaining users in the session will not be able to make modifications on the sheet.

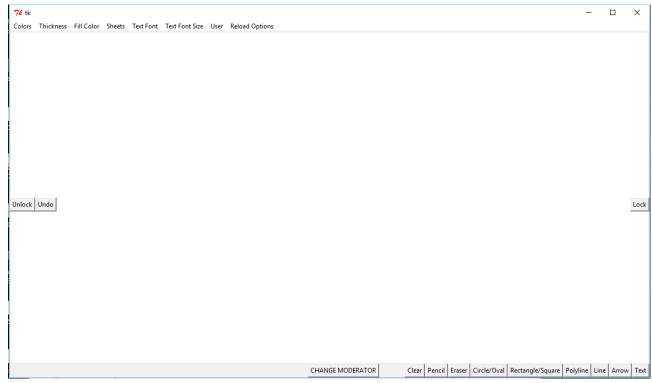


Fig 3.28

**Comment:** 

#### 3.27

Test: TEST\_FE9

Purpose: Testing UNDO operation.

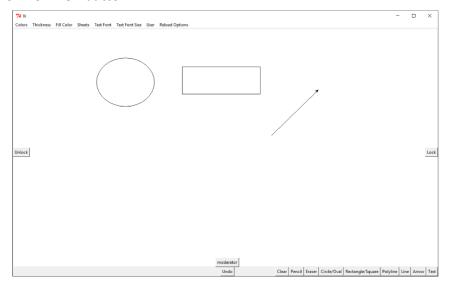
Requirements: REQ\_USR29

**Environment:** The server is setup and the whiteboard application is run.

# Operation:

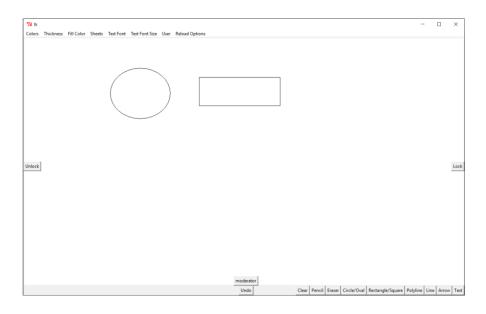
- Enter the login page and give ADMIN credentials.
- Click on "CREATE EMPLOYEE" button and register a new employee.
- Go to LOGIN PAGE and enter the employee credentials received via E-mail.

- EMPLOYEE PAGE is displayed. Click on "START SESSION" button to enter a new whiteboard session.
- Draw basic shapes on the sheet.
- Click on "UNDO" button.



# **Expected Result:**

• Last drawn event is removed from the sheet.



3.28

Test: TEST\_FE13

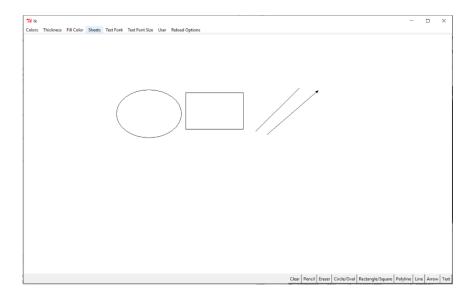
Purpose: To view the list of modifications.

Requirements: REQ\_USR30

**Environment:** The server is setup and the whiteboard application is run.

#### Operation:

- Enter the login page and give ADMIN credentials.
- Click on "CREATE CUSTOMER" button and register a new customer.
- Go to LOGIN PAGE and enter the customer credentials received via E-mail.
- Whiteboard sheet is displayed.
- Draw any four basic shapes on the sheet.
- Logout of the session.
- Open MySQL Workbench and make a connection to the server.
- Use the electroblitz database. Command: use electroblitz.
- View the contents of the modification table 'Table\_1'.



# **Expected Result:**

• Each modification done on the sheet is stored as an event in the table along with an index, a timestamp, the name of user that produced the modification and on what sheet occurred.



#### 3.29

Test: TEST FE18

**Purpose:** To test automatic playback of modifications.

Requirements: REQ\_USR31

**Environment:** The server is setup and the whiteboard application is run.

#### Operation:

- Enter the login page and give ADMIN credentials.
- Click on "CREATE CUSTOMER" button and register a new customer.
- Go to LOGIN PAGE and enter the customer credentials received via E-mail.
- Whiteboard sheet is displayed.
- Draw any four basic shapes on the sheet.
- Select the "Reload Options" from the menu bar and click on "Playback" option.

#### **Expected Result:**

 Automatic playback of all modifications done on the sheet, by providing a delay of one second between each modification.

#### 3.30

Test: TEST FE18

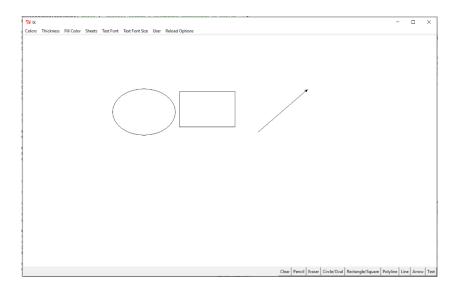
Purpose: To test Reload with click.

Requirements: REQ USR32

**Environment:** The server is setup and the whiteboard application is run.

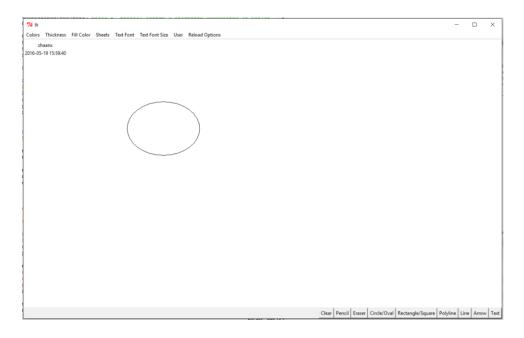
# Operation:

- Enter the login page and give ADMIN credentials.
- Click on "CREATE CUSTOMER" button and register a new customer.
- Go to LOGIN PAGE and enter the customer credentials received via E-mail.
- Whiteboard sheet is displayed.
- Draw any four basic shapes on the sheet.
- Select the "Reload Options" from the menu bar and click on "On Click" option.



# **Expected Result:**

• With each mouse left click, a modification from the list is added to the whiteboard along with the modification timestamp and name of user responsible for it.



**Comment:** 

# 3.31

Test: TEST\_BE6

**Purpose**: To test Encryption of web server.

Requirements: REQ\_USR33

**Environment:** The server is setup (with certificates) and the whiteboard application is run.

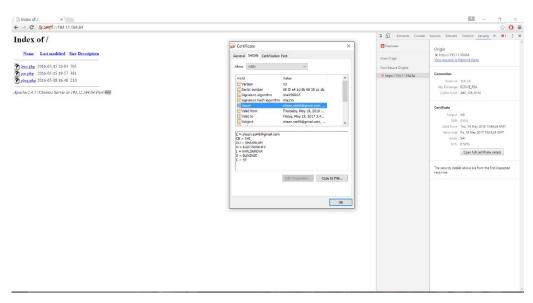
# Operation:

• Open browser

• Visit <a href="https://HOSTIP">https://HOSTIP</a>

• view sites information, click on details, click on view certificate.

# **Expected result:**



Result:
Comment:
3.32
Test: TEST_BE9
Purpose: Encryption of MySQL server.
Requirements: REQ_USR34
<ul> <li>Environment: The server is setup and the application is installed and run. A MySQL instance is also run in parallel.</li> <li>Operation: <ul> <li>Open wireshark, start capturing packets.</li> <li>Login as any user and draw anything on the sheet.</li> <li>Now getback to wireshark, observe the mysql protocol packets</li> </ul> </li> </ul>
Expected result: The observed data makes no sense (encrypted)
Result:
Comment:

3.33

Test: TEST\_BE10

**Purpose**: To test RESTful API.

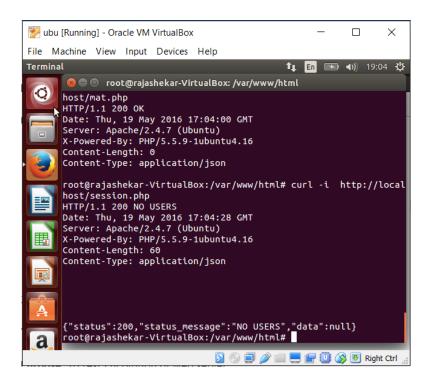
Requirements: REQ\_USR35

**Environment:** The server is setup and run.

# Operation:

• In the server run command 'curl -i http://localhost/session.php'

# **Expected result**:



**Result:** 

**Comment:** 

3.34

Test: TEST\_BE11

**Purpose**: To test Debugging feature.

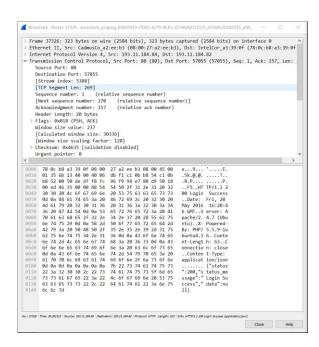
Requirements: REQ USR37

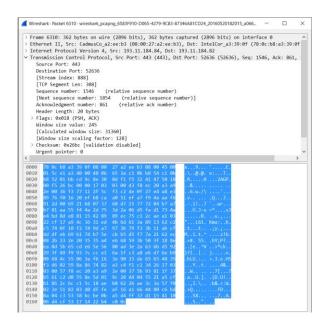
**Environment:** The server is setup and the whiteboard application is run.

#### Operation:

- Login either as customer or employee.
- Logout of the session.
- Login as Admin and select the debug option.
- Login either as customer or employee.
- Open Wireshark and observe data exchange occurred at step 1 and step 4.

# **Expected result:**





**Comment:** 

#### 3.35

Test: TEST\_FE23

Purpose: To test reconfigurable IP.

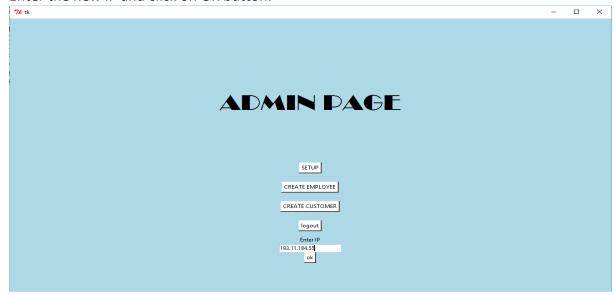
Requirements: REQ\_USR38

**Environment:** The server is setup and the whiteboard application is run. Only Admin can reconfigure IP address.

# **Operation:**

- Admin logs into the application with Admin credentials.
- Click on change IP.

• Enter the new IP and click on OK button.



• Click on Setup button.

# **Expected Results:**

IP is changed.

# 4. REFERENCES

[1] ConTech product request, P5: Internet Whiteboard, 2016. [Online]. Available for itslearning users:

https://bth.itslearning.com/ContentArea/ContentArea.aspx?LocationID=6504&LocationType=1

- [2] Design Document –version3.0.
- [3] Software Requirement Specification-version 3.0.