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# Test Document

for

# Mess Automation System

Version 0.2

Prepared by

Group:7

Group Name:The Software Savants

|                      |        |  |
|----------------------|--------|--|
| Ashutosh Agrawal     | 210219 | <a href="mailto:ashutosh21@iitk.ac.in">ashutosh21@iitk.ac.in</a>     |
| Sawan H N            | 210952 | <a href="mailto:sawanhn21@iitk.ac.in">sawanhn21@iitk.ac.in</a>       |
| Mansi Singh          | 210590 | <a href="mailto:mansisingh21@iitk.ac.in">mansisingh21@iitk.ac.in</a> |
| Prapti Dagli         | 210748 | <a href="mailto:praptid21@iitk.ac.in">praptid21@iitk.ac.in</a>       |
| Sanjay Kumar         | 210080 | <a href="mailto:askumar21@iitk.ac.in">askumar21@iitk.ac.in</a>       |
| Archisha Singh       | 210181 | <a href="mailto:archishas21@iitk.ac.in">archishas21@iitk.ac.in</a>   |
| Mokshagna Prattipati | 210761 | <a href="mailto:mokshagna21@iitk.ac.in">mokshagna21@iitk.ac.in</a>   |
| Charugundla Chethan  | 210279 | <a href="mailto:chethan21@iitk.ac.in">chethan21@iitk.ac.in</a>       |

Course: CS253

Mentor TA: Archit Gupta ([garchit@cse.iitk.ac.in](mailto:garchit@cse.iitk.ac.in))

Date: 23 Apr 2023

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## Revisions

| Version | Primary Author(s) | Description of Version | Date Completed |
|---------|-------------------|------------------------|----------------|
| 0.1     | Ashutosh Agrawal  | First Draft            | 02/04/2023     |

| Version | Primary Author(s)   | Description of Version | Date Completed |
|---------|---|------------------------|----------------|
|         | <b>Sawan H N</b><br><b>Mansi Singh</b><br><b>Prapti Dagli</b><br><b>Sanjay Kumar</b><br><b>Archisha Singh</b><br><b>Mokshagna</b><br><b>Prattipati</b><br><b>Charugundla</b><br><b>Chethan</b>                            |                        |                |
| 0.2     | <b>Ashutosh Agrawal</b><br><b>Sawan H N</b><br><b>Mansi Singh</b><br><b>Prapti Dagli</b><br><b>Sanjay Kumar</b><br><b>Archisha Singh</b><br><b>Mokshagna</b><br><b>Prattipati</b><br><b>Charugundla</b><br><b>Chethan</b> | Final Draft            | 23/04/2023     |

## ● Introduction

**Testing Strategy:** System tests are automated whereas Integration Tests and Unit tests are implemented manually.

**Testing Timeline:** The testing was conducted after the implementation was completed.

**Testers:** The testing process was done by the developers themselves.

**Coverage Criteria:** We used decision coverage criteria and branch coverage criteria for unit testing.

**Tools Used:**

- **System Testing :** TestComplete, a commercial automated testing tool developed by SmartBear Software. It is a comprehensive tool for system, functional, regression, and GUI testing of desktop, web, and mobile applications across various platforms, including Windows, macOS, Linux, iOS, and Android.

## ● Unit Testing

### 1. Register

The test was to check the register component. How the component is reacting under right,wrong and empty inputs.

**Unit Details:** Class:Register.ejs Function: Register

**Test Owner:** Prapti Dagli and Mansi Singh

**Test Date:** [28/03/2023]-[29/03/2023]

**Test Results:** Passed. Under right inputs,the user was registered successfully whereas under wrong and empty inputs exceptions were raised.

Inputs:{name="Prapti",RollNo="210743",emailid="[praptid@iitk.ac.in](mailto:praptid@iitk.ac.in)",password="123"}

Output:Registered Successfully [PASSED]

Inputs: All fields empty

Output: Signup Failed [PASSED]

Inputs: Any one field empty

Output: Signup Failed [PASSED]

Inputs: All fields same except password

Output: Signup Failed [PASSED]

**Structural Coverage:** Code Coverage :100% and Branch Coverage :100%

**Additional Comments:** Additional tests regarding registration were conducted but not mentioned.

### 2. Login

The test was to check whether the user is able to login with proper credentials.

**Unit Details:** Class:Login.ejs Function: Register

**Test Owner:** Prapti Dagli and Mansi Singh

**Test Date:** [28/03/2023]-[29/03/2023]

**Test Results:** Passed. Under right inputs,users were able to login successfully whereas under wrong and empty inputs exceptions were raised.

Inputs:{emailid="[praptid@iitk.ac.in](mailto:praptid@iitk.ac.in)",password="123"}

Output:Login Successfully [PASSED]

Inputs:{emailid="[praptid@iitk.ac.in](mailto:praptid@iitk.ac.in)",password="12"}

Output:Login Failed due to wrong password [PASSED]

Inputs: Any one field empty

Output:LoginFailed [PASSED]

**Structural Coverage:** Code Coverage :100% and Branch Coverage :100%

### 3. Student->Complain

The test was to check whether the user is able to submit his complaint.

**Unit Details:** Class:Complain.ejs Function:Complain

**Test Owner:** Prapti Dagli and Mansi Singh

**Test Date:** [28/03/2023]-[29/03/2023]

**Test Results:** Passed. Under right inputs, users were able to submit complaints successfully whereas under wrong and empty inputs exceptions were raised.

Inputs:{text="Milk quality is very bad"}

Output:Complain submitted successfully [PASSED]

Inputs:emailid="[praptid@iitk.ac.in](mailto:praptid@iitk.ac.in)",password="12"}

Output:Login Failed due to wrong password [PASSED]

Inputs: Empty Complain

Output: Complaint submission failed [PASSED]

**Structural Coverage:** Code Coverage :100% and Branch Coverage :100%

### 4. Student->Apply for rebate

The test was to check whether the user is able to apply for rebate

**Unit Details:** Class:Rebate.ejs Function:Rebate

**Test Owner:** Prapti Dagli and Mansi Singh

**Test Date:** [28/03/2023]-[29/03/2023]

**Test Results:** Passed. Under right inputs, users were able to apply for rebates successfully whereas under wrong and empty inputs exceptions were raised.

Inputs:{Starting Date="04/01/2023" , Ending Date="04/05/2023"}

Output:Rebate request submitted successfully [PASSED]

Inputs:{Starting Date="04/01/2023"}

Output:Rebate request failed [PASSED]

Inputs:{Starting Date="04/01/2023" , Ending Date="01/01/2023"}

Output:Rebate request failed [PASSED]

Inputs: Any one field empty

Output: Rebate request failed [PASSED]

**Structural Coverage:** Code Coverage :100% and Branch Coverage :100%

## 5. Student->Extras

The test was to check whether the user is able to order for extras.

**Unit Details:** Class:Extras.ejs Function: Extras

**Test Owner:** Prapti Dagli and Mansi Singh

**Test Date:** [28/03/2023]-[29/03/2023]

**Test Results:** Passed. Under right inputs, users were able to order for extras successfully whereas under wrong and empty inputs exceptions were raised.

Inputs:{Milk:"1",FriedRice:"2"}

Output:Ordered Successfully [PASSED]

Inputs:{Milk:" -1",FriedRice:"2"}

Output:Ordered Failed [PASSED]

**Structural Coverage:** Code Coverage :100% and Branch Coverage :100%

## 6. Manager->Complaints

The test was to check whether the user is able to see the complaint and reply to the solution.

**Unit Details:** Class:Complaint.ejs Function: Complain

**Test Owner:** Prapti Dagli and Mansi Singh

**Test Date:** [28/03/2023]-[29/03/2023]

**Test Results:** Passed. Under right inputs, users were able to login successfully whereas under wrong and empty inputs exceptions were raised.

Inputs:{reply="I will look into the matter"}

Output:Replied Successfully [PASSED]

Inputs: Empty Reply

Output: Replied Failed [PASSED]

**Structural Coverage:** Code Coverage :100% and Branch Coverage :100%

## 7. Manager->Extras

The test was to check whether the user is able to add extra items and set its price.

**Unit Details:** Class:extras.ejs Function: extras

**Test Owner:** Prapti Dagli and Mansi Singh

**Test Date:** [28/03/2023]-[29/03/2023]

**Test Results:** Passed. Under right inputs, users were able to login successfully whereas under wrong and empty inputs exceptions were raised.

Inputs:{name="Paneer Bhujia",price="35"}

Output: Extras Added Successfully [PASSED]

Inputs:{name="Rice",price="0"}

Output: Extras Failed to add [PASSED]

Inputs: Any one field empty

Output: Extras Failed to add [PASSED]

**Structural Coverage:** Code Coverage :100% and Branch Coverage :100%

## 8. Manager->Access Account

The test was to check whether the user is able to change the mess bill and dues paid by a particular resident.

**Unit Details:** Class:accessAccount.ejs Function: AccessAccount

**Test Owner:** Prapti Dagli and Mansi Singh

**Test Date:** [28/03/2023]-[29/03/2023]

**Test Results:** Passed. Under right inputs, users were able to generate bills of students successfully whereas under wrong and empty inputs exceptions were raised.

Inputs:{Starting Date="04/01/2023" , Ending Date="04/05/2023", DailyCost="60"}

Output: Submitted successfully [PASSED]

Inputs:{Starting Date="04/01/2023" , Ending Date="03/01/2023", DailyCost="60"}

Output: Submit Failed [PASSED]

Inputs: Any one field empty

Output: Submission Failed [PASSED]

**Structural Coverage:** Code Coverage :100% and Branch Coverage :100%

## ● Integration Testing

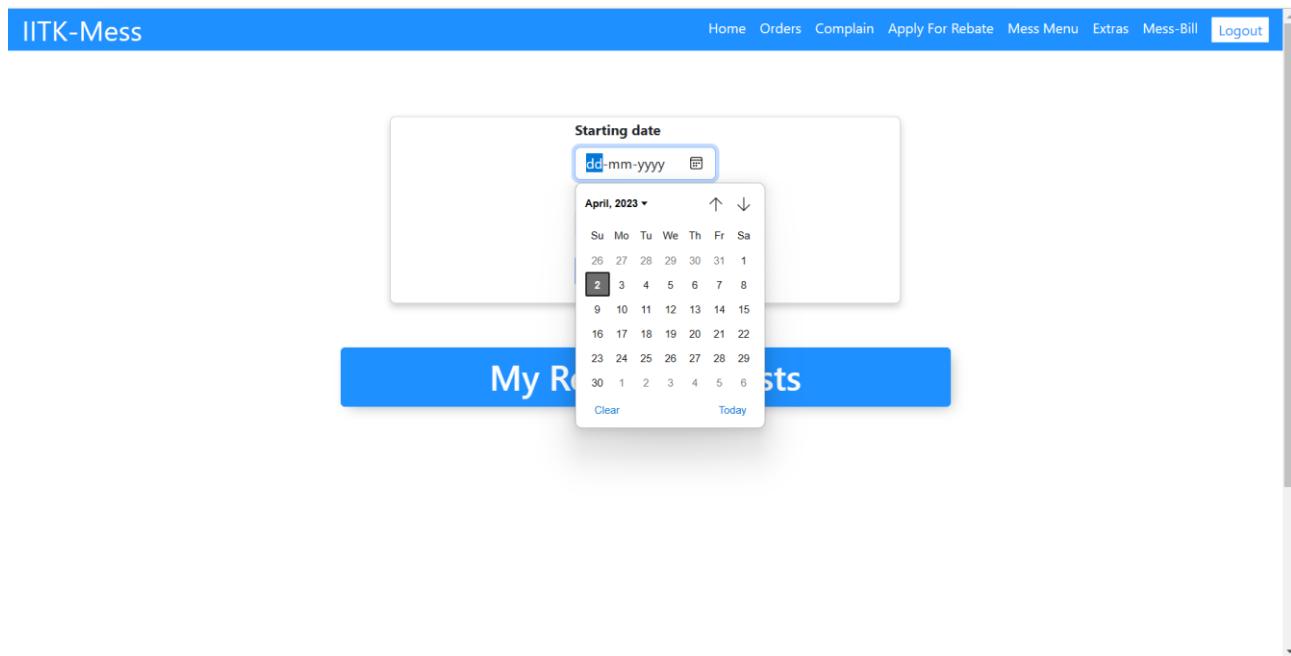
1. **Rebate:** Tests related to rebate requests from resident to manager and rebate approval from manager to resident

**Module Details:** module containing tests for whether a manager can receive rebate requests from residents and whether residents can view rebate approval status from the manager and also see his/her rebate days in the home section.

**Test Owner:** Mansi Singh and Prapti Dagli

**Test Date:** [30/03/2023] - [31/03/2023]

**Test Results:**



IITK-Mess

Home Orders Complain Apply For Rebate Mess Menu Extras Mess-Bill Logout

Starting date  
 

Ending Date  
 

**My Rebate requests**

IITK-Mess

Home Orders Complain Apply For Rebate Mess Menu Extras Mess-Bill Logout

Starting date  
 

Ending Date  
 

**My Rebate requests**

X From: April 4, 2023 To: April 13, 2023

Days: 9 Status: pending

IITK-Mess

Orders Complaints Rebate Approval Mess Menu Extras Access Account Logout

## Rebate requests

Roll: 100010 No. of days: 9  
From: April 4, 2023 To: April 13, 2023

IITK-Mess

Home Orders Complain Apply For Rebate Mess Menu Extras Mess-Bill Logout

Starting date dd-mm-yyyy

Ending Date dd-mm-yyyy

## My Rebate requests

From: April 4, 2023 To: April 13, 2023  
X Days: 9 Status: Approved

The screenshot shows a software application window titled "IITK-Mess". At the top, there is a navigation bar with links: Home, Orders, Complain, Apply For Rebate, Mess Menu, Extras, Mess-Bill, and Logout. Below the navigation bar, there is a user profile box containing the following information:

|             |   |             |
|-------------|---|-------------|
| Name        | : | Mansi Singh |
| RollNo      | : | 100010      |
| Extras      | : | ₹60/-       |
| Dues        | : | ₹0/-        |
| Rebate Days | : | 9           |

**Additional Comments:** A student is easily able to apply for approval of rebate application.

## 2. Complain: Tests related to complaints from resident to manager and reply from manager to resident

**Module Details:** module containing tests for whether a manager can receive complaints from residents and whether residents can view replies from the manager.

**Test Owner:** Mansi Singh and Prapti Dagli

**Test Date:** [30/03/2023] - [31/03/2023]

The screenshot shows a web application interface for submitting complaints. At the top, there is a blue header bar with the text "IITK-Mess". Below the header, a sub-header says "Type Your Complaint Below". A text input field contains the text "Quality of food is very bad.". To the right of the input field is a blue "Submit" button. In the center, there is a large blue button with the text "My Complaints". The background of the main content area is white.

The screenshot shows a web application interface similar to the first one, but with an additional message overlay. The message overlay is a white box with a thin gray border. It contains the text "Complaint: Quality of food is very bad." and "Reply: pending". There is also a small red "X" icon in the top-left corner of the message box. The rest of the interface is identical to the first screenshot, with the "IITK-Mess" header, "Type Your Complaint Below" sub-header, and the "My Complaints" button.

## Complaints

|   |                       |                      |
|---|-----------------------|----------------------|
| <b>Roll:</b> 210279<br><b>Complaint:</b> first complaint              | <a href="#">Reply</a> | <a href="#">Send</a> |
| <b>Roll:</b> 210279<br><b>Complaint:</b> second complaint             | <a href="#">Reply</a> | <a href="#">Send</a> |
| <b>Roll:</b> 210279<br><b>Complaint:</b> check                        | <a href="#">Reply</a> | <a href="#">Send</a> |
| <b>Roll:</b> 100010<br><b>Complaint:</b> Quality of food is very bad. | <a href="#">Reply</a> | <a href="#">Send</a> |

IITK-Mess

Type Your Complaint Below

Home Orders Complain Apply For Rebate Mess Menu Extras Mess-Bill Logout

Submit

## My Complaints

|   |
|---|
| <span style="color: red;">X</span> <b>Complaint:</b> Quality of food is very bad.<br><b>Reply:</b> we will look into this matter. |
|---|

**Additional Comments:** A student is easily able to Complain regarding any issue about the mess.

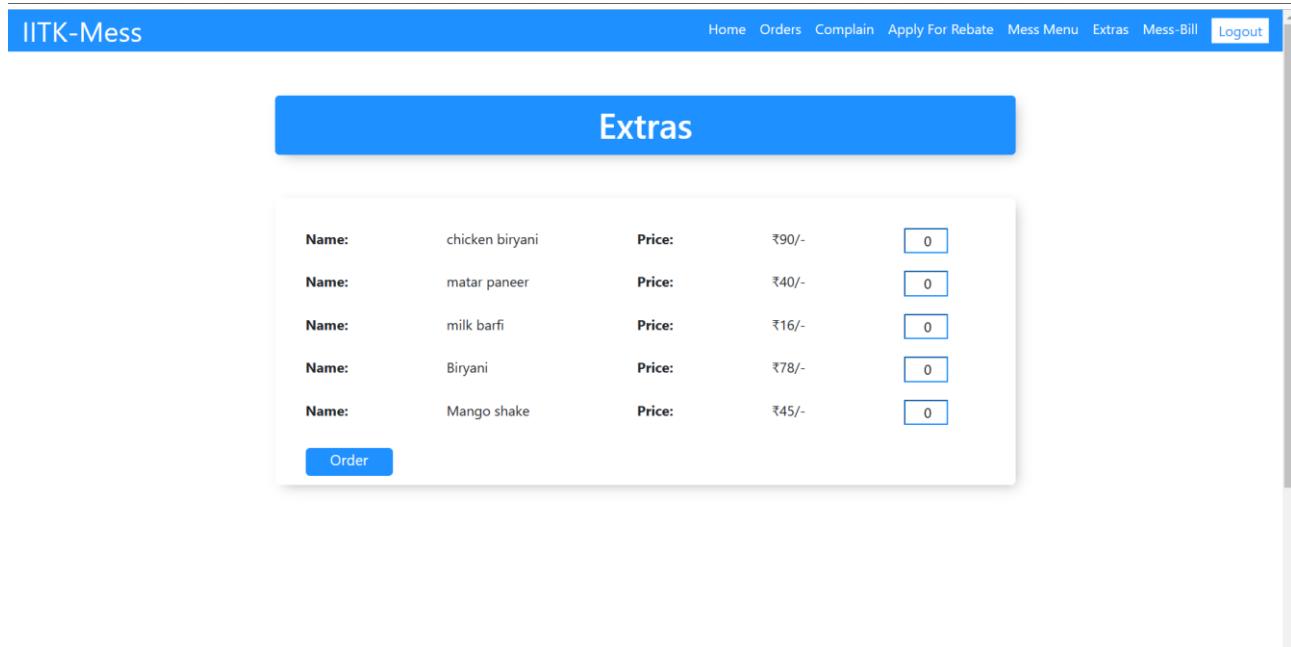
### 3. Extras: Tests related to seeing extras from resident to manager and adding extras from manager to resident

**Module Details:** module containing tests for whether a manager can add extras and whether residents can view extras from the manager.

**Test Owner:** Mansi Singh and Prapti Dagli

**Test Date:** [30/03/2023] - [31/03/2023]**Test Results**

A screenshot of the same application interface, but with a green border around the main content area. The "Extras" header is present, and below it is a table listing five items: "chicken biryani" (₹90/-), "matar paneer" (₹40/-), "milk barfi" (₹16/-), "Biryani" (₹78/-), and "Mango shake" (₹45/-). Each item has a "Remove" link next to it. At the bottom of the list, there is a row with "Name" and "Price" input fields, and an "Add" button.



**Additional Comments:** Extras updated by manager getting shown on each student's account.

#### 4. Bill : Tests related to seeing bill from resident to manager and generating bill from manager to resident

**Module Details:** module containing tests for whether a manager can generate bills and whether residents can view bills from the manager.

**Test Owner:** Mansi Singh and Prapti Dagli

**Test Date:** [30/03/2023] - [31/03/2023]

**Test Results:**

The screenshot displays the IITK-Mess software interface, which includes a navigation bar at the top with links for Orders, Complaints, Rebate Approval, Mess Menu, Extras, Access Account, and Logout.

**Generate Bill:** A modal window titled "Generate bill" contains fields for "Starting date" (01-04-2023), "Ending Date" (30-04-2023), "Daily Cost" (78), and a "Submit" button.

**Update dues:** A large blue button labeled "Update dues" is positioned below the bill generation section.

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**Generated Bills:** A large blue button labeled "Generated Bills" is located at the bottom of the main content area.

**Generated Bills Summary:** Below the "Generated Bills" button, a summary table provides details: From: April 6, 2023, To: April 8, 2023, Working Days: 3, Daily Cost: ₹100/-.

**Account Management:** Three sub-sections are shown: "Generate Bill" (with starting date 25-03-2023, ending date 31-03-2023, daily cost 89, and a "Generate" button), "Find Account" (with fields for Roll Number, Current Dues (0), and Current Extras (0), and a "Find" button), and "Update Account" (with fields for Roll Number, New Dues (0), and New Extras (0), and a "Update" button). The "Update Account" section is highlighted with a green border.

The screenshot shows a software application window titled "ITK-Mess". At the top, there is a navigation bar with links: Orders, Complaints, Rebate Approval, Mess Menu, Extras, Access Account, and Logout.

**Generate Bill:** A form with fields for Starting date (dd-mm-yyyy), Ending Date (dd-mm-yyyy), and Daily Cost. A "Generate" button is present.

**NOTE:** A modal window titled "NOTE" displays the message "Bill has been generated" and a "Close" button.

**Current Dues:** A section showing Current Dues and Current Extras, both set to 0. A "Find" button is located below it.

**Update Account:** A form with fields for Roll Number, New Dues, New Extras, and an Update button.

**Generated Bills:** A blue header bar indicating the section. Below it, a summary table shows data from April 6, 2023, to April 8, 2023, with Working Days: 3, Daily Cost: ₹100/-, and a Total amount of ₹300/-.

The screenshot shows a software application window titled "ITK-Mess". At the top, there is a navigation bar with links: Home, Orders, Complain, Apply For Rebate, Mess Menu, Extras, Mess-Bill, and Logout.

**Bills:** A blue header bar indicating the section. Below it, a summary table shows data from April 1, 2023, to April 30, 2023, with Working Days: 29, Daily Cost: ₹78/-, Extras Cost: ₹0/-, and a Total amount of ₹1950/-.

|                      |                   |                     |                   |
|----------------------|-------------------|---------------------|-------------------|
| <b>From:</b>         | February 19, 2023 | <b>To:</b>          | February 28, 2023 |
| <b>Working Days:</b> | 10                |                     |                   |
| <b>Rebate Days:</b>  | 0                 |                     |                   |
| <b>Daily Cost:</b>   | ₹80/-             | <b>Extras Cost:</b> | ₹0/-              |
| <b>Total:</b>        | ₹800/-            |                     |                   |
| <b>From:</b>         | February 19, 2023 | <b>To:</b>          | February 28, 2023 |
| <b>Working Days:</b> | 10                |                     |                   |
| <b>Rebate Days:</b>  | 0                 |                     |                   |
| <b>Daily Cost:</b>   | ₹80/-             | <b>Extras Cost:</b> | ₹0/-              |
| <b>Total:</b>        | ₹800/-            |                     |                   |
| <b>From:</b>         | April 21, 2023    | <b>To:</b>          | April 24, 2023    |
| <b>Working Days:</b> | 4                 |                     |                   |
| <b>Rebate Days:</b>  | 0                 |                     |                   |
| <b>Daily Cost:</b>   | ₹89/-             | <b>Extras Cost:</b> | ₹454/-            |
| <b>Total:</b>        | ₹810/-            |                     |                   |
| <b>From:</b>         | March 25, 2023    | <b>To:</b>          | March 31, 2023    |
| <b>Working Days:</b> | 7                 |                     |                   |
| <b>Rebate Days:</b>  | 0                 |                     |                   |
| <b>Daily Cost:</b>   | ₹89/-             | <b>Extras Cost:</b> | ₹0/-              |
| <b>Total:</b>        | ₹623/-            |                     |                   |

**Additional Comments:** Manager is easily able to update the monthly bill on each student's account .

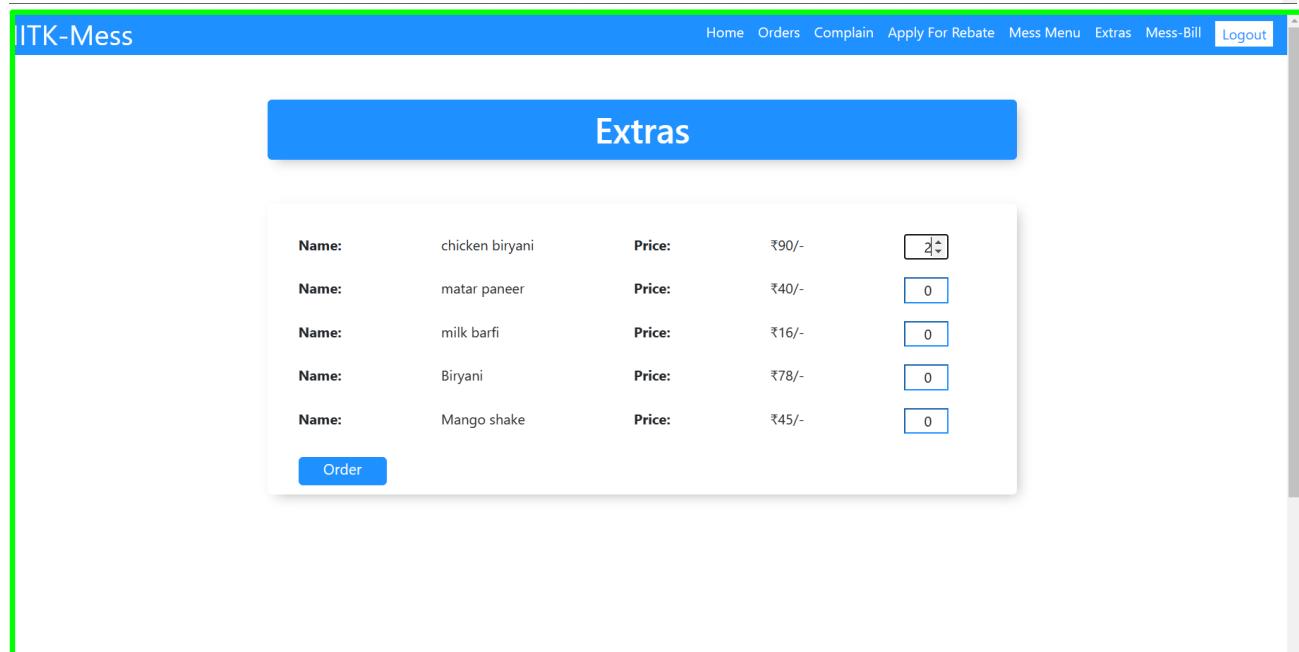
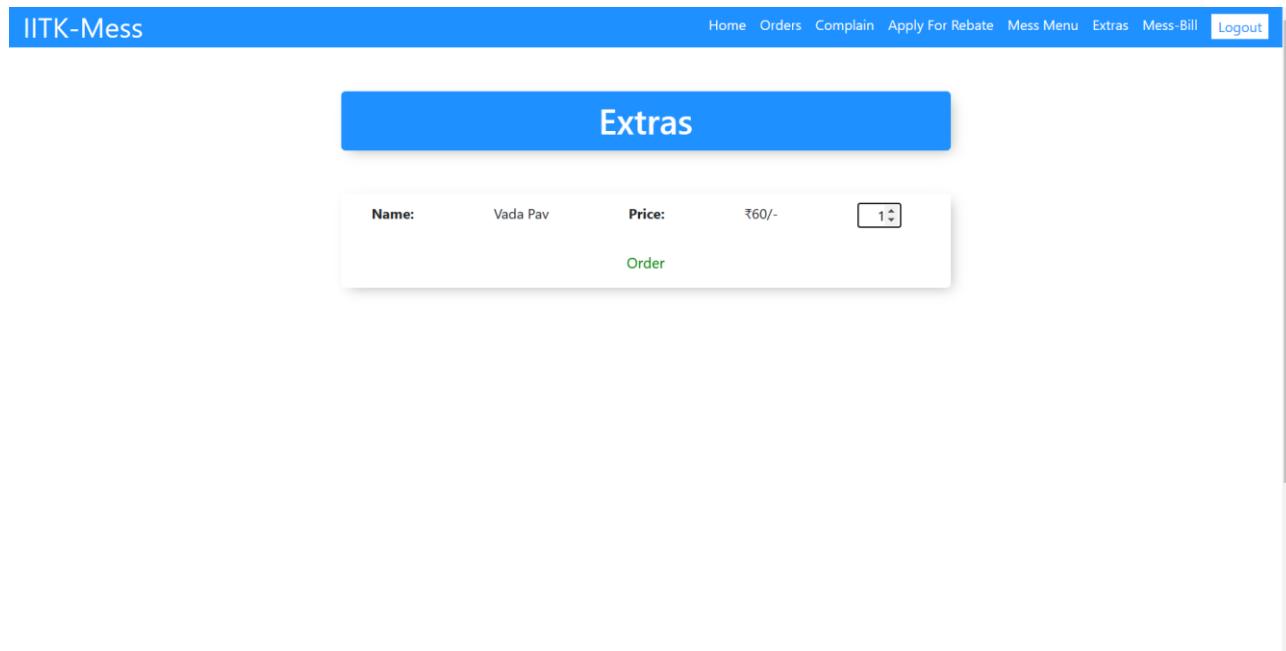
## 5. Extras: Tests related to extras from the extras section to the home section and the orders section of the resident's interface.

**Module Details:** module containing tests for whether a resident can book extras and see the price of total extras in home and see the name of the extras with price in orders with a generated code which will get verified by the mess manager.

**Test Owner:** Mansi Singh and Prapti Dagli

**Test Date:** [30/03/2023] - [31/03/2023]

**Test Results:**



IITK-Mess

Home Orders Complain Apply For Rebate Mess Menu Extras Mess-Bill Logout

**Name** : Mansi Singh  
**RollNo** : 100010  
**Extras** : ₹60/-  
**Dues** : ₹1950/-  
**Rebate Days** : 0

IITK-Mess

Home Orders Complain Apply For Rebate Mess Menu Extras Mess-Bill Logout

**Name** : Mansi  
**RollNo** : 100010  
**Extras** : ₹180/-  
**Dues** : ₹3092/-



|         |                 |        |       |           |   |         |         |
|---------|-----------------|--------|-------|-----------|---|---------|---------|
| Total:  | ₹292/-          |        |       |           |   |         |         |
| Roll:   | 210279          |        |       |           |   |         |         |
| ● Name: | matar paneer    | Price: | ₹40/- | Quantity: | 1 | Status: | pending |
| Name:   | milk barfi      | Price: | ₹16/- | Quantity: | 3 | Status: | cleared |
| Total:  | ₹88/-           |        |       |           |   |         |         |
| Roll:   | 1000010         |        |       |           |   |         |         |
| Name:   | chicken biryani | Price: | ₹90/- | Quantity: | 2 | Status: | cleared |
| Total:  | ₹180/-          |        |       |           |   |         |         |
| Roll:   | 1000010         |        |       |           |   |         |         |
| Name:   | chicken biryani | Price: | ₹90/- | Quantity: | 2 | Status: | cleared |
| Name:   | milk barfi      | Price: | ₹16/- | Quantity: | 1 | Status: | cleared |
| Name:   | Biryani         | Price: | ₹78/- | Quantity: | 1 | Status: | cleared |
| Total:  | ₹274/-          |        |       |           |   |         |         |
| Roll:   | 1000010         |        |       |           |   |         |         |
| ● Name: | chicken biryani | Price: | ₹90/- | Quantity: | 2 | Status: | pending |
| Total:  | ₹180/-          |        |       |           |   |         |         |
| Roll:   | 1000010         |        |       |           |   |         |         |
| ● Name: | matar paneer    | Price: | ₹40/- | Quantity: | 2 | Status: | pending |
| Total:  | ₹80/-           |        |       |           |   |         |         |

IITK-Mess

[Orders](#) [Complaints](#) [Rebate Approval](#) [Mess Menu](#) [Extras](#) [Access Account](#) [Logout](#)

**CODE VERIFICATION**

799380

[Close](#) [Submit](#)

|         |                 |        |       |           |   |         |         |
|---------|-----------------|--------|-------|-----------|---|---------|---------|
| Roll:   | 210279          |        |       |           |   |         |         |
| Name:   | chicken biryani | Price: | ₹90/- | Quantity: | 1 | Status: | cleared |
| Name:   | matar paneer    | Price: | ₹40/- | Quantity: | 1 | Status: | cleared |
| Name:   | milk barfi      | Price: | ₹16/- | Quantity: | 2 | Status: | cleared |
| Total:  | ₹162/-          |        |       |           |   |         |         |
| Roll:   | 210748          |        |       |           |   |         |         |
| Name:   | chicken biryani | Price: | ₹90/- | Quantity: | 2 | Status: | cleared |
| ● Name: | matar paneer    | Price: | ₹40/- | Quantity: | 2 | Status: | pending |
| Name:   | milk barfi      | Price: | ₹16/- | Quantity: | 2 | Status: | cleared |
| Total:  | ₹292/-          |        |       |           |   |         |         |
| Roll:   | 210279          |        |       |           |   |         |         |
| ● Name: | matar paneer    | Price: | ₹40/- | Quantity: | 1 | Status: | pending |
| Name:   | milk barfi      | Price: | ₹16/- | Quantity: | 3 | Status: | cleared |
| Total:  | ₹88/-           |        |       |           |   |         |         |
| Roll:   | 1000010         |        |       |           |   |         |         |

IITK-Mess

Orders Complaints Rebate Approval Mess Menu Extras Access Account Logout

**NOTE**

The code entered is incorrect. Please double-check and try again.

**Close**

|         |                 |        |       |           |   |         |         |
|---------|-----------------|--------|-------|-----------|---|---------|---------|
| Roll:   | 210279          |        |       |           |   |         |         |
| Name:   | chicken biryani | Price: | ₹90/- | Quantity: | 1 | Status: | cleared |
| Name:   | matar paneer    | Price: | ₹40/- | Quantity: | 1 | Status: | cleared |
| Name:   | milk barfi      | Price: | ₹16/- | Quantity: | 2 | Status: | cleared |
| Total:  | ₹162/-          |        |       |           |   |         |         |
| Roll:   | 210748          |        |       |           |   |         |         |
| Name:   | chicken biryani | Price: | ₹90/- | Quantity: | 2 | Status: | cleared |
| ● Name: | matar paneer    | Price: | ₹40/- | Quantity: | 2 | Status: | pending |
| Name:   | milk barfi      | Price: | ₹16/- | Quantity: | 2 | Status: | cleared |
| Total:  | ₹292/-          |        |       |           |   |         |         |
| Roll:   | 210279          |        |       |           |   |         |         |
| ● Name: | matar paneer    | Price: | ₹40/- | Quantity: | 1 | Status: | pending |
| Name:   | milk barfi      | Price: | ₹16/- | Quantity: | 3 | Status: | cleared |
| Total:  | ₹88/-           |        |       |           |   |         |         |
| Roll:   | 100010          |        |       |           |   |         |         |

IITK-Mess

Orders Complaints Rebate Approval Mess Menu Extras Access Account Logout

**CODE VERIFICATION**

219674

**Close** **Submit**

|         |                 |        |       |           |   |         |         |
|---------|-----------------|--------|-------|-----------|---|---------|---------|
| Roll:   | 210279          |        |       |           |   |         |         |
| Name:   | chicken biryani | Price: | ₹90/- | Quantity: | 1 | Status: | cleared |
| Name:   | matar paneer    | Price: | ₹40/- | Quantity: | 1 | Status: | cleared |
| Name:   | milk barfi      | Price: | ₹16/- | Quantity: | 2 | Status: | cleared |
| Total:  | ₹162/-          |        |       |           |   |         |         |
| Roll:   | 210748          |        |       |           |   |         |         |
| Name:   | chicken biryani | Price: | ₹90/- | Quantity: | 2 | Status: | cleared |
| ● Name: | matar paneer    | Price: | ₹40/- | Quantity: | 2 | Status: | pending |
| Name:   | milk barfi      | Price: | ₹16/- | Quantity: | 2 | Status: | cleared |
| Total:  | ₹292/-          |        |       |           |   |         |         |
| Roll:   | 210279          |        |       |           |   |         |         |
| ● Name: | matar paneer    | Price: | ₹40/- | Quantity: | 1 | Status: | pending |
| Name:   | milk barfi      | Price: | ₹16/- | Quantity: | 3 | Status: | cleared |
| Total:  | ₹88/-           |        |       |           |   |         |         |
| Roll:   | 100010          |        |       |           |   |         |         |

The screenshot shows a software application window titled "IITK-Mess". At the top right, there are navigation links: Orders, Complaints, Rebate Approval, Mess Menu, Extras, Access Account, and Logout. A blue modal dialog box is centered on the screen with the title "NOTE". The message in the dialog states: "Code matches with the generated code. The status of the extra item has been successfully updated from 'pending' to 'cleared'." Below the dialog, the main content area displays a list of student orders. Each order entry includes the Roll number, items ordered, their prices, quantities, and current status. For example, one entry for Roll 210279 shows an order for chicken biryani, matar paneer, and milk barfi, with a total of ₹162/- and all items cleared. Another entry for Roll 210279 shows an order with one pending item (matar paneer) and two cleared items (chicken biryani and milk barfi), totaling ₹292/-. Other entries for rolls 100010 and 100011 show various combinations of cleared and pending items.

| Roll:  | Name:           | Price: | Quantity: | Status: |
|--------|-----------------|--------|-----------|---------|
| 210279 | chicken biryani | ₹90/-  | 2         | cleared |
|        | matar paneer    | ₹40/-  | 1         | cleared |
|        | milk barfi      | ₹16/-  | 1         | cleared |
| Total: |                 |        |           | ₹162/-  |
| 210748 | chicken biryani | ₹90/-  | 2         | cleared |
| (●)    | matar paneer    | ₹40/-  | 2         | pending |
|        | milk barfi      | ₹16/-  | 2         | cleared |
| Total: |                 |        |           | ₹292/-  |
| 210279 | matar paneer    | ₹40/-  | 1         | pending |
|        | milk barfi      | ₹16/-  | 3         | cleared |
| Total: |                 |        |           | ₹88/-   |
| 100010 |                 |        |           |         |
| Total: |                 |        |           | ₹292/-  |
| 210279 |                 |        |           |         |
| (●)    | matar paneer    | ₹40/-  | 1         | pending |
|        | milk barfi      | ₹16/-  | 3         | cleared |
| Total: |                 |        |           | ₹88/-   |
| 100010 | chicken biryani | ₹90/-  | 2         | cleared |
| Total: |                 |        |           | ₹180/-  |
| 100010 | chicken biryani | ₹90/-  | 2         | cleared |
|        | milk barfi      | ₹16/-  | 1         | cleared |
|        | Biryani         | ₹78/-  | 1         | cleared |
| Total: |                 |        |           | ₹274/-  |
| 100010 | chicken biryani | ₹90/-  | 2         | cleared |
| Total: |                 |        |           | ₹180/-  |
| 100010 |                 |        |           |         |
| (●)    | matar paneer    | ₹40/-  | 2         | pending |
| Total: |                 |        |           | ₹80/-   |

**Additional Comments:** Order placed by a student is getting shown on the order page and total price of order also updating on student's home page.

## 6. Dues: Tests related to viewing dues from resident to manager and dues paid from manager to resident

**Module Details:** module containing tests for whether a manager can update paid dues of residents and whether residents can view their dues.

**Test Owner:** Mansi Singh and Prapti Dagli

**Test Date:** [30/03/2023] - [31/03/2023]

**Test Results:**

The screenshot shows a user interface for managing resident dues. At the top, there is a form with fields for 'Starting date' (dd-mm-yyyy) and 'Ending Date' (dd-mm-yyyy), both with calendar icons. Below these are fields for 'Daily Cost' (a text input box) and a 'Submit' button. A large blue button labeled 'Update dues' is centered below the form. Below this button is a row of buttons: '100010' (highlighted in red), '1950' (with a dropdown arrow), and 'Update'. At the bottom of the page, there is a navigation bar with links: Home, Orders, Complain, Apply For Rebate, Mess Menu, Extras, Mess-Bill, and Logout. On the right side of the navigation bar, there is a vertical scroll bar.

|                    |
|--------------------|
| Name : Mansi Singh |
| RollNo : 100010    |
| Extras : ₹0/-      |
| Dues : ₹1950/-     |
| Rebate Days : 0    |

The screenshot shows a user profile card for a student named Mansi Singh. The card displays the following information:

- Name :** Mansi Singh
- RollNo :** 100010
- Extras :** ₹60/-
- Dues :** ₹0/-
- Rebate Days :** 0

**Additional Comments:** Manager can easily update the dues of a student.

#### 7. Find Account - Manager can access the account details of residents by entering roll no.

The screenshot displays three modules for managing resident accounts:

- Generate Bill:** Allows users to input a starting date, ending date, and daily cost to generate a bill.
- Find Account:** Allows users to enter a roll number to view current dues and extras.
- Update Account:** Allows users to update roll number, new dues, and new extras.

A large blue button labeled "Generated Bills" is prominently displayed at the bottom of the interface. Below it, a summary table provides the following details:

|                      |               |                    |               |
|----------------------|---------------|--------------------|---------------|
| <b>From:</b>         | April 6, 2023 | <b>To:</b>         | April 8, 2023 |
| <b>Working Days:</b> | 3             | <b>Daily Cost:</b> | ₹100/-        |

**IITK-Mess**

**Generate Bill**

Starting date  Ending Date  Daily Cost

**NOTE**  
Please enter new dues and new extras dues in the Update Account section to update this account.

**Current Dues**   
**Current Extras**

**Update Account**

Roll Number   
**New Dues**   
**New Extras**

**Generated Bills**

From: April 6, 2023 To: April 8, 2023  
 Working Days: 3 Daily Cost: ₹100/-

**IITK-Mess**

**Generate Bill**

Starting date  Ending Date  Daily Cost

**Find Account**

Roll Number   
**Current Dues**   
**Current Extras**

**Update Account**

Roll Number   
**New Dues**   
**New Extras**

**Generated Bills**

From: April 6, 2023 To: April 8, 2023  
 Working Days: 3 Daily Cost: ₹100/-

The screenshot shows a web-based application titled "IITK-Mess". At the top, there is a navigation bar with links: Home, Orders, Complain, Apply For Rebate, Mess Menu, Extras, Mess-Bill, and Logout. Below the navigation bar, a modal window displays the following information:

|          |         |
|----------|---------|
| Name :   | Mansi   |
| RollNo : | 100010  |
| Extras : | ₹260/-  |
| Dues :   | ₹3092/- |

*Additional Comments: Manager can easily access and update the dues of a student.*

# ● System Testing

## 1. Requirement: login

Test was conducted for verifying the account creation and login function , i.e user is logged in if the email id and password are matched , and the run time is reported.

**Test Owner:** Sawan H N

**Test Date:** [01/04/2023]-[02/04/2023]

**Test Results:**

- All the tests were successful
- Run time:0.17 s

The screenshot displays two windows of the TestComplete application running on a Windows operating system.

**Top Window (TestScript View):**

- Project Explorer:** Shows a tree structure with 'TestSuite1' expanded, containing 'Logs' and 'Unit1'.
- Test Actions:** A list of actions including 'Start', 'Maximize', 'Wait', 'Click', 'Keys', 'SetText', and 'ClickButton'.
- Test Steps:** A visual representation of the test steps, showing five sequential steps labeled 'Update'.
- Variables:** A table showing variables like 'prjId21@itt.ac.in' and 'Project.Variables.Password1'.

**Bottom Window (Log View):**

- Project Explorer:** Shows 'TestProject1' expanded, containing 'Execution Plan' and 'Logs'.
- Log Items:** A list of logs for 'Keyword Test Log [Test4] 3/30/2023'.
- Test Log:** A detailed log table with columns: Type, Message, Time, Priority, Has Picture, Link, and Time Diff (s.).
- Information:** Displays start and end times (3/30/2023 12:14 PM - 3/30/2023 12:15 PM) and run time (0:00:17).

## 2. Requirement:Apply for rebate

Test was conducted to check the rebate application feature , i.e students can apply for rebate by filling start date and end date , after approval from manager his request will show up under my requests, and the run time for application submission was reported.

**Test Owner:** Ashutosh Agrawal

**Test Date:** [01/04/2023]-[02/04/2023]

### Test Results:

- All the test cases passed
- Run time:0.16 s

The screenshot displays the TestComplete software interface. At the top, the title bar reads "TestComplete - C:\Users\hp\OneDrive\Documents\TestComplete 15 Projects\TestProject1\TestProject1.pjs". The menu bar includes File, Edit, View, Test, Debug, Tools, Help, and a toolbar with various icons. The workspace shows a Project Explorer with "TestProject1" expanded, containing "Execution Plan", "KeywordTests" (with sub-items like "Text1" through "Text11"), "Script", and "NameMapping". Below it is a "Project Suite Logs" section with "TestProject1 Logs" expanded, showing multiple "Keyword Test Log" entries. The main area has two panes: "Log Items" on the left and "Test Log" on the right. The "Test Log" pane lists numerous log items with columns for Type, Message, Time, Priority, Has Picture, Link, and Time Diff. The log details interactions with a browser window, such as maximizing, clicking, and entering text. Below the log is a "Picture" section showing a screenshot of a browser window with the URL "http://localhost:3000/" and the alias "Aliases.browser". The bottom pane, "Test Steps", shows a hierarchical tree of operations and actions, including "Record", "Run", and "Add Parameter". A detailed view of a step named "linkApplyForRebate" is shown, listing sub-actions like "Click", "Wait", and "SetText" with specific parameters. The status bar at the bottom indicates the date and time as 3/30/2023 6:34 PM.

### 3. Requirement:order extras

Test was conducted to check extras booking features , i.e students can choose the quantity of desired items from the list of items available and order them, and runtime for this process was reported.

**Test Owner:** Charugundla Chethan

**Test Date:** [01/04/2023]-[02/04/2023]

### Test Results:

- All the test cases passed
- Run time:0.09 s

The screenshot shows the TestComplete application interface. The Project Explorer pane on the left lists various test logs and scripts. The central workspace contains the Log Items and Test Log panes. The Test Log pane shows a detailed log of test events for 'Keyword Test Log [Test12]'. The log includes entries for navigating to the URL, maximizing the browser window, clicking links, and interacting with input fields. Below the log is a screenshot of a browser window displaying a form with three input fields labeled 'numberinputQuantity1', 'numberinputQuantity2', and 'numberinputQuantity3', and a 'button' below them. The status bar at the bottom indicates the date and time as 3/30/2023 6:39 PM.

## 4. Requirement:viewing of complaints and replying (manager interface)

Test was conducted to verify replying for complaints feature , i.e manager can view and give reply for complaints of students.and the runtime for reply submission is reported .

**Test Owner:** Mokshagna Prattipati

**Test Date:** [01/04/2023]-[02/04/2023]

### Test Results:

- All the test cases were passed
- Run time: 0.10 s

The screenshot displays the TestComplete application interface. The top section shows the 'Test Log' for 'Keyword Test Log [Test13]'. It lists several log entries with timestamps from 18:45:06 to 18:45:11, indicating interactions with a browser window, such as maximizing and clicking buttons, and entering text into a text editor. The bottom section shows the 'Test Plan' for 'TestProject1', specifically the 'TestPlan1' execution plan. It details the test steps, including navigating to a URL, maximizing a browser window, clicking a 'linkComplaints' link, waiting for the page to load, clicking a 'textboxReply' control, setting its text to 'Ok, I will look into that matter', and finally clicking a 'buttonButtonMx3' button.

## 5. Requirement: updating list of items available(manager's interface)

Test was conducted to verify the item updation feature for manager, i.e manager should be able to add or remove the list of items available for students to buy, and the changes should get reflected at students end, the run time for the addition of an item is reported.

**Test Owner:** Mansi Singh and Prapti Dagli

**Test Date:** [01/04/2023]-[02/04/2023]

### Test Results:

- all the test cases were successful
- Run time: 0.11 s

The screenshot displays the TestComplete application interface. The top pane shows the 'Test Log' for 'Keyword Test Log [Test15]'. It lists several log entries, such as navigating to the URL and interacting with a browser window. The bottom pane shows the 'Operations' section under 'Record' mode, displaying a sequence of steps: 'Navigate' to 'Chrome' with URL 'http://localhost:3000/manager/extras', 'Maximize' the window, 'Click' on 'textboxlevItem', 'SetText' with value 'Maggie', 'Click' on 'textboxPrice', 'SetText' with value '15', 'Click' on 'button', and 'Wait'. Below this, the 'Test Steps' pane shows five visual representations of the UI state corresponding to each step in the recorded sequence. The system tray at the bottom indicates the date as 3/30/2023 and the time as 6:56 PM.

## 6. Requirement: updation of mess bill (manager interface)

Test was conducted to verify the mess bill updation feature for the manager, i.e manager can update bills of individual students, and runtime for this process was reported.

**Test Owner:** Archisha Singh

**Test Date:** [01/04/2023]-[02/04/2023]

### Test Results:

- All the test cases were passed
- Run time: 0.14 s

| Type | Message   | Time     | Priority | Has Picture | Link | Time Diff (s..) |
|------|---|----------|----------|-------------|------|-----------------|
|      | Navigating to the http://localhost:3000/manager/accessAccount page. | 18:58:51 | Normal   |             |      | 0.00            |
|      | The window was maximized.   | 18:58:52 | Normal   |             |      | 0.58            |
|      | The window was clicked with the left mouse button.                  | 18:58:52 | Normal   |             |      | 0.40            |
|      | The text 'April' was entered in the text editor.                    | 18:58:53 | Normal   |             |      | 0.39            |
|      | The window was clicked with the left mouse button.                  | 18:58:53 | Normal   |             |      | 0.40            |
|      | The text '2023' was entered in the text editor.                     | 18:58:54 | Normal   |             |      | 0.56            |
|      | The window was clicked with the left mouse button.                  | 18:58:54 | Normal   |             |      | 0.43            |
|      | The text '30' was entered in the text editor.                       | 18:58:55 | Normal   |             |      | 0.40            |
|      | The window was clicked with the left mouse button.                  | 18:58:55 | Normal   |             |      | 0.40            |
|      | The text '10' was entered in the text editor.                       | 18:58:56 | Normal   |             |      | 0.45            |
|      | The button was clicked with the left mouse button.                  | 18:58:56 | Normal   |             |      | 0.65            |
|      | The window was clicked with the left mouse button.                  | 18:58:57 | Normal   |             |      | 1.66            |
|      | Keyboard input.   | 18:58:58 | Normal   |             |      | 0.79            |
|      | The window was clicked with the left mouse button.                  | 18:58:59 | Normal   |             |      | 0.53            |
|      | The text '30' was entered in the text editor.                       | 18:58:59 | Normal   |             |      | 0.35            |
|      | The button was clicked with the left mouse button.                  | 18:59:00 | Normal   |             |      | 0.64            |

| Item               | Operation   | Value   | Description   |
|--------------------|-------------|---|---|
| Navigation         | Chrome      | "http://localhost:3000/manager/accessAccount" | Opens the specified URL in a running instance of the spe    |
| browser            | Maximize    |   | Maximizes the specified Window object.                      |
| BrowserWindow      | Maximize    |   |   |
| pageDocument4      | Click       | "..."   | Clicks the 'textboxMonth' control.                          |
| textboxMonth       | SetText     | "April"                                       | Sets the text 'April' in the 'textboxMonth' text editor.    |
| textboxYear        | Click       | "..."   | Clicks the 'textboxYear' control.                           |
| textbox            | SetText     | "2023"  | Sets the text '2023' in the 'textboxYear' text editor.      |
| textboxWorkingdays | Click       | "..."   | Clicks the 'textboxWorkingdays' control.                    |
| textboxWorkingdays | SetText     | "30"  | Sets the text '30' in the 'textboxWorkingdays' text editor. |
| textboxDelaycost   | Click       | "..."   | Clicks the 'textboxDelaycost' control.                      |
| textboxDelaycost   | SetText     | "60"  | Sets the text '60' in the 'textboxDelaycost' text editor.   |
| button             | ClickButton | "..."   | Clicks the 'button' button.                                 |
| pageDocument4      | Wait        | "..."   | Waits until the browser loads the page and is ready to a    |
| textboxRolling     | Click       | "..."   | Clicks the 'textboxRolling' control.                        |
| textboxRolling     | Keyst       | "210748"                                      | Enters '210748' in the 'textboxRolling' object.             |

## 7. Requirement: logging of complaint by student

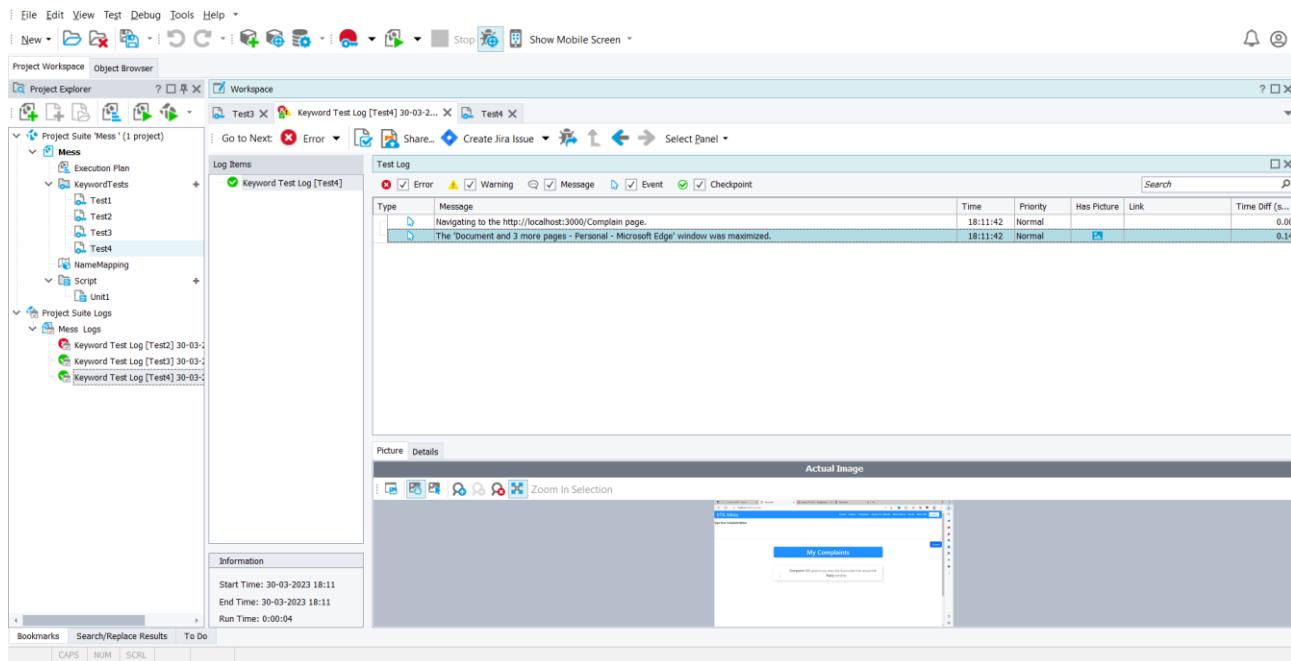
Test was conducted to verify complaint logging feature , i.e student can log complaint .and the runtime for complaint submission is reported .

**Test Owner:** Sanjay Kumar

**Test Date:** [01/04/2023]-[02/04/2023]

### Test Results:

- All the test cases were passed
- Run time: 0.04 s



## ● Conclusion

### **How Effective and exhaustive was the testing?**

Most of the unit tests had 100% decision coverage and 100% branch coverage. Integration tests covered some major features such as rebate, complaint, mess bill, etc . Stress testing (a type of testing that is so harsh, it is expected to push the program to failure) was done at multiple concurrency levels and thread counts.

### **Which components have not been tested adequately?**

Automation Testing was very difficult in Unit and Integration Testing. So, we tested them manually. It might be possible that they aren't tested adequately.

### **What difficulties have you faced during testing?**

We faced difficulties in finding Software for System Testing and learning that software to do system testing effectively.

### **How could the testing process be improved?**

Testing process could be improved by having good knowledge of how to do automated unit and integration testing effectively and by having even better code coverage. Some specific test suites must exist to cater our specific needs that can be looked into.

## Appendix A - Group Log

- The group activities during testing were asynchronous, where we kept constant communication via our whatsapp group.
- Testing was completed on 1 Apr, 2023. The testing process was documented in parallel with the testing.
- The documentation was completed on 2 Apr, 2023 after coordinating with the unit, integration and system testers

