

**PUSS214203**

v. 0.4

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**TimeMate**

Software Verification and Validation Instructions

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Group 2

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## 1 Document History

Version	Date	Responsible	Description
0.1	2021-02-10	TG	Document created.
0.2	2021-02-15	TG	Ready for informal review.
0.3	2021-02-18	TG	Removed a test. Fixed grammatics.
0.4	2021-02-24	TG	Corrected reference error, changed descriptions for testcases, removed paragraph in chapter 4.

## 2 Introduction

This document presents detailed test instructions of the TimeMate system.

## 3 Reference Documents

1. Software Verification and Validation Specification: TimeMate, v. 1.2, Doc. number: PUSS214202

## 4 Test Instructions

The detailed test instructions for the test cases introduced in ref. 1 are shown in appendices below. Test cases are a set of instructions that are carried out by the tester in numerical order. Before a function test is carried out, the preconditions described in the “Start state” should be met. When steps are initiated with “Check that” they describe an expected result of the system, and the testers’ task’ is to make sure that the expected result is given. FT16 is crossed since it has been removed from ref. 1.

## 5 Appendices

- A. Function Test Instructions
- B. System Test Instructions

## A. Function Test Instructions

### 5.1 Login and Logout

- **FT1: User can login with correct username and password. (JUnit)**  
**Start state:** User not logged in, user “Alex” does exist in the database and has password “123ABCde”.  
**End state:** User “Alex” is logged in.
  1. Create a Database-object called “Alex”.
  2. `assertTrue(Alex.checkLogin(“Alex”, “123ABCde”))`.
  3. Check that the test passes.
- **FT2: User cannot login with non existing user. (JUnit)**  
**Start state:** User not logged in, User “Malte” does not exist in the database.  
**End state:** User “Malte” is not logged in.
  1. Create a Database-object called “Malte”.
  2. `assertFalse(Malte.checkLogin(“Malte”, “123ABCde”))`.
  3. Check that the test passes.
- **FT3: User cannot login with other users passwords.**  
**Start state:** User not logged in, user “Alex” does exist in the database and has password “123ABCde”. User “Erik” also exists in the database and has password “deCBA321”.  
**End state:** User “Alex” is not logged in.
  1. Access the login page.
  2. Login with username “Alex” and password “deCBA321”.
  3. Check that the user is not logged in and that an error message is given.
- **FT4: User cannot login with foregoing password.**  
**Start state:** User not logged in, user “Alex” exists in database with password “123ABCde”.  
**End state:** User “Alex” is not logged in.
  1. Access the login page.
  2. Login with username “Alex” and password “123ABCde”.
  3. Change password for user “Alex” to “deCBA321”.
  4. Click the “Logout” button.
  5. Access the login page.
  6. Login with username “Alex” and password “123ABCde”.
  7. Check that the user is not logged in and that an error message is given.
- **FT5: User can logout.**  
**Start state:** User “Alex” exist in the database and is logged in.  
**End state:** User not logged in.

1. Press the “Logout” button.
  2. Check that “Alex” is not logged in.
- **FT6: User gets a new password from the server by email if requested.**  
**Start state:** User not logged in, user “Alex” does exist in the database and has password “123ABCde” and email address “TimeMatePUSP2021@gmail.com” is registered in the database.  
**End state:** User “Alex” is logged in.
    1. Access the login page.
    2. User requests a new password.
    3. Access the inbox of “TimeMatePUSP2021@gmail.com” and copy the new password.
    4. Access the login page.
    5. Login using username “Alex” and the password received in the email.
    6. Check that the user is logged in.
  - **FT7: User gets a new password from the server by email on account creation.**  
**Start state:** Logged in with administrator account. User “Malte” does not exist in the database.  
**End state:** User “Malte” is logged in.
    1. Add a new user with username: “Malte” and email “TimeMatePUSP2021@gmail.com”.
    2. Press the “Logout” button.
    3. Access the inbox of “TimeMatePUSP2021@gmail.com” and copy the new password.
    4. Access the login page.
    5. Login with username: “Malte” and the password received in the email.
    6. Check that the user is logged in.
  - **FT8: User can change password from logged-in state.**  
**Start state:** User not logged in, user “Alex” does exist in the database and has password “123ABCde”.  
**End state:** User “Alex” is logged in.
    1. Access the login page.
    2. Login with username “Alex” and password “123ABCde”.
    3. Click the “Change Password” button.
    4. Choose the new password “deCBA321”.
    5. Click the “Change Password” button.
    6. Click the “Logout” button.
    7. Access the login page.
    8. Login with username “Alex” and password “deCBA321”.
    9. Check that the user is logged in.

- **FT9: User tries to change password from logged-in state but enters incorrect new password.**

**Start state:** User not logged in, user “Alex” does exist in the database and has password “123ABCde”.

**End state:** The site displays a message informing that the entered password is invalid.

1. Access the login page.
2. Login with username ‘Alex’ and password “123ABCde”.
3. Click the “Change Password” button.
4. Choose the new password “abcABC%”.
5. Click the “Change Password” button.
6. Checks that the site displays a message informing that the password has not been changed.

- **F10: User is shown a relevant error message on failed login.**

**Start state:** User is not logged in. User “Lazar” does not exist in the database.

**End state:** User “Lazar” is not logged in.

1. Access login page.
2. Enter username “Lazar” and password “passwordnot”.
3. Click the “Login” button .
4. Check that the site displays a message informing that the login has failed.

## 5.2 Data

- **FT11: When changing password, it must adhere to the password ruleset.**

**Start state:** User is logged in.

**End state:** The site displays a message informing that the password has been changed.

1. Click the “Change Password” button.
2. Try to change the password to “ABCabc123”.
3. User clicks the “Change Password” button.
4. Check that the site displays a message informing that the password is changed.

- **FT12: When changing password, user cannot change password if it doesn’t adhere to the password ruleset**

**Start state:** User is logged in.

**End state:** The site displays a message informing that the password has not been changed.

1. Click the “Change Password” button.
2. Try to change the password to “&aaaa”.
3. Click the “Change Password” button.
4. Check that an error message is displayed saying that the new password is invalid.

### 5.3 User

- **FT13: Users can submit a time report.**

**Start state:** User is logged in.

**End state:** A new time report is submitted.

1. Click the “Time Report” button.
2. Click the “Create New Time Report” button.
3. Fill in information.
4. Click the “Submit” button.
5. Check that the newly submitted time report exists in the list.

- **FT14: Can see a summarized view of current user time reports.**

**Start state:** User is logged in.

**End state:** The site displays a summarized view of the current user time reports.

1. Click the “Time Report” button.
2. Check that a new page with a summary of time reports submitted by the current user is displayed.

- **FT15: Can edit a submitted report if it is not signed by a Project Leader.**

**Start state:** User is logged in. The user has an unsigned report.

**End state:** The site displays a message informing that the time report is updated.

1. Click the “Time Report” button.
2. Click the “Edit Time Report” button.
3. Select a time report that hasn’t been signed by the Project Leader.
4. Check that a new page is shown with the corresponding time report.
5. Change information.
6. Click “Submit Change”.
7. Checks that the site displays a message informing that the time report is updated.

- ~~**FT16: Cannot edit a submitted report if it is signed by a Project Leader.**~~

**Start state:** User is logged in. The user has submitted a time report, and it has been signed by a Project Leader.

**End state:** The site displays a message informing that the report has not been updated.

1. Click the “Time reporting” button.
2. Click the “Edit Time Report” button.
3. Select a time report that has been signed by the Project Leader.
4. Checks that the site displays a message informing that the user has failed to change the report.

## 5.4 Project Leader

- **FT17: Can see a summarized view of the user time reports.**  
**Start state:** Project Leader is logged in. Users exist in the database.  
**End state:** The site displays a summarized view of all users' time reports.
  1. Click the "SHOW SIGNED REPORTS" button.
  2. Check that a list of signed reports is displayed.
- **FT18: Can see all users and their roles.**  
**Start state:** Project Leader is logged in. Users exist in the database.  
**End state:** The site displays all users and their correspondent roles.
  1. Access the User management page.
  2. Check that the site displays a list of all the users and their correspondent roles.
- **FT19: Can change roles on other users.**  
**Start state:** Project Leader is logged in. A user "Malte" exist in the database and has a role.  
**End state:** User "Malte" role has been changed.
  1. Access the User management page.
  2. Check that the site displays a list of all the users and their correspondent roles.
  3. Click a radio button with a different role for the user "Malte".
  4. Click the "Confirm" button.
  5. Check that the role of "Malte" has changed in the database with MySql workbench.
- **FT20: Cannot change roles on themselves.**  
**Start state:** Project Leader is logged in.  
**End state:** The site displays a message informing that the role has not been changed.
  1. Access the User management page.
  2. Check that the site displays a list of all the users and their correspondent roles.
  3. Click a radio button with a different role for the logged in Project Leader.
  4. Click the "Confirm" button.
  5. Check that the site displays an error message, informing that their action has failed.
- **FT21: Cannot change other Project Leaders roles.**  
**Start state:** Project Leader is logged in, another Project Leader exists in the database.  
**End state:** The site displays a message informing that change is not allowed.
  1. Access the User management page.
  2. Check that the site displays a list of all the users and their correspondent roles.
  3. Click a radio button with a different role for another Project Leader.
  4. Click the "Confirm" button.



5. Check that the site displays an error message, informing that their action has failed.

- **FT22: Can sign time reports**

**Start state:** Project Leader is logged in. A user has submitted a time report that is unsigned.

**End state:** A time report is signed and does not show up in the list of unsigned time reports.

1. Click the “Sign Time Reports” button.
2. Check that the site displays a list of all the unsigned time reports.
3. Select an unsigned time report.
4. Click the corresponding checkbox designated for signing the time report.
5. Click the “Confirm” button.
6. Check that the page is updated and that the time report which was signed does not exist in the list.

- **FT23: Can reverse a signed time report making it editable again.**

**Start state:** Project Leader is logged in. User “Alex” does exist in the database and has password “123ABCde”. The user has submitted a time report that has been signed.

**End state:** The time report is now unsigned.

1. Click the “SHOW SIGNED REPORTS” button.
2. Check that a list of signed time reports is displayed.
3. Make the time report unsigned.
4. Click the “Logout” button.
5. Access the login page.
6. Login with username “Alex” and password “123ABCde”.
7. Click the “Time Report” button.
8. Select the time report that was unsigned by Project Leader.
9. Click the “Edit Time Report” button.
10. Make some changes to the time report and click the “Submit Change” button.
11. Check that the site displays a list of unsigned time reports and that the time report has been updated according to the changes.

## 5.5 Administrator

- **FT24: Can access administration page.**

**Start state:** User not logged in. Administrator accounts exist in the database.

**End state:** Administration page is shown.

1. Access the login page.
2. Login using the administrator account.
3. Access the Administration Page.
4. Check that the Administration Page is shown.

- **FT25: Can add a new user.**

**Start state:** Logged in with the administrator account and on the Administration Page. User "Max" is not in the database.

**End state:** User "Max" is added to the database with a valid username and password.

1. Click the "add a user" button.
2. Locate the text field "User Name" and enter "Max".
3. Locate the text field "Email Address" and enter "TimeMatePUSP2021@gmail.com".
4. Check the "Max" is added to the database with MySql workbench.

- **FT26: Cannot add a new user with existing username.**

**Start state:** Logged in with the administrator account and on the Administration Page. User "Alex" exists in the database.

**End state:** The site displays a message informing that the user was not created.

1. Click the "add a user" button.
2. Locate the text field "User Name" and enter "Alex".
3. Locate the text field "Email Address" and enter "TimeMatePUSP2021@gmail.com".
4. Check that the site displays a message informing that user "Alex" already exists.
5. Check if there are two users with the same name in the database with MySql workbench.

- **FT27: Can remove a user.**

**Start state:** Logged in with the administrator account and on the Administration page. User "Alex" exists in the database.

**End state:** User "Alex" is removed from the database.

1. Click the "remove a user" button corresponding to the user "Alex".
2. Enter the user name "Alex".
3. Click the "confirm" button.
4. Check that the user "Alex" is removed from the database with MySql workbench.

- **FT28: Can see a summarized view of users time reports.**

**Start state:** Logged in with the administrator account.

**End state:** The system displays a summarized view of all users time reports.

1. Click the "SHOW SIGNED REPORTS" button.
2. Check that a list of signed time reports is displayed.

- **FT29: Can change the roles of all users.**

**Start state:** Logged in with the administrator account. User "Malte" exists in the database and has a role.

**End state:** User "Malte" now has the role of Project Leader.

1. Click the button "User Management".
2. Check that the site displays a list of all the users and their correspondent roles.

3. Click a radio button with a different role for the user “Malte”.
  4. Click the “Confirm” button.
  5. Check that the role of “Malte” has changed in the database with MySQL workbench.
- **FT30: Can change the roles of all Project Leaders.**  
**Start state:** Logged in with the administrator account. User “Malte” exists in the database and has the role of Project Leader.  
**End state:** The role of a “Malte” is changed to another role.
    1. Click the “User Management” button.
    2. Click on a radio button with a different role corresponding to the user “Malte”.
    3. Click the “Confirm” button.
    4. Check that the role of “Malte” has been changed in the database with MySQL workbench.
  - **FT31: Can view all users as a list.**  
**Start state:** Logged in with the administrator account. Users exist in the database.  
**End state:** The site displays a list of all the users.
    1. Access the User management page.
    2. Check that the site displays a list of all the users and their correspondent roles.

## B. System Test Instructions

- **ST1: Perform FT3-FT31 in Google Chrome on Windows 10**

**Start state:** Empty tab in Google Chrome.

**End state:** The site displays a list of all the users.

1. Access the login page.
2. Perform Function Test FT3 to FT31 in order.

- **ST2: Perform FT3-FT31 in Mozilla Firefox on Windows 10**

**Start state:** Empty tab in Mozilla Firefox.

**End state:** The site displays a list of all the users.

1. Access the login page.
2. Perform Function Test FT3 to FT31 in order.

- **ST3: Perform FT3-FT31 in Microsoft Edge on Windows 10**

**Start state:** Empty tab in Microsoft Edge.

**End state:** The site displays a list of all the users.

1. Access the login page.
2. Perform Function Test FT3 to FT31 in order.