REVISION HISTORY

| **Date** | **Version** | **Description** | **Author** |
| --- | --- | --- | --- |
| 0.11.2023 | 1.0 | Hardware and software preparation parts have been added. | Meriç Okçu, Buğra Bedir Durmuş |
| 02.11.2023 | 1.1 | Test Preparation has been added. | Meriç Okçu |
| 02.11.2023 | 1.2 | Safety, Security, and Privacy Precautions have been added. | Buğra Bedir Durmuş |
| 03.11.2023 | 1.3 | Parts of the hardware and software have been updated. | Meriç Okçu, Buğra Bedir Durmuş |
| 07.11.2023 | 1.4 | References had been added. | Arda Onur |
| 07.11.2023 | 1.5 | Safety Security section had been added. | Buğra Bedir, Arda Onur |
| 07.11.2023 | 1.6 | Main test and test description had been added. | Arda Onur,Buğra Bedir,Meriç Okçu,Ömer Özmeteler, Kaan İşmen |
| 13.11.2023 | 1.7 | Revision had been made for test. | Arda Onur, Ömer Özmeteler |
| 16.11.2023 | 1.8 | Revision had been made for the all report. | Meriç Okçu, Kaan İşmen |

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# Introduction

## Document overview

This document is the software test plan of the AVEC (AVIELENT E-Commerce Software) development project. It contains the description of tests.

## References

| # | Document Identifier | Document Title |
| --- | --- | --- |
| [SRS] | AVEC - SRS | AVEC Software Requirements Specifications |
| [SDP] | AVEC - SDP | AVEC Software Development Plan |

## Conventions

Each test case will be presented in a table format as shown below:

| **Test ID** | <ID of the test> |  |
| --- | --- | --- |
| Test description | <A brief description of the test> |  |
| Verified Requirement | <ID numbers of requirements that are to be verified with this test.> | Verification method: <I,A,D,T> |
| Initial conditions | <The state of software before test> |  |
| Tests inputs | <Input data from any test tool, input files name and location, if any > |  |
| Data collection actions | <Recording and post processing of output data, if any > |  |
| Tests outputs | <Output data files, if any> |  |
| Assumptions and constraints | If any, may be limited access to a tool, license … |  |
| Expected results and criteria | <list of expected results> | <special criteria to be met by the result, if any> |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | <actions listed row by row> | <expectation after each action if any> |
| 2 | … | … |

# Tests preparations

This section contains tasks and recommendations before executing tests.

## Hardware preparation

Computers provided in AVEC SDP will be used for the tests.

Group member’s computers:

● Intel(R) Core(TM) i7-4790 CPU @ 3.60GHz, 3601 Mhz, 4 Core

● 2 TB HDD, 120 GB SSD

● NVIDIA GeForce GTX 1070 Ti

● 16 GB 2x8 3200 Mhz Vengeance on board Memory  
● Windows 11 Home  
  
MacBook Pro 2021

● Apple M1 chip

● 512 GB PCIe-based SSD

● AMD Radeon Pro 5500M

● 16 GB GDDR6 VRAM

MacBook Pro 2023

● Apple M2 Pro Chip

● 512 GB PCIe-based SSD

● AMD Radeon Pro 5500M

● 16 GB GDDR6 VRAM

Asus TUF Gaming A15 FA506II-BQ018

● AMD Ryzen 7 4800H

● 512 GB SSD

● NVIDIA GeForce GTX 1650Ti

● 16 GB 2x8 RAM

Monster Tulpar T7 V20.1

● Intel Core i7-9750H CPU

● 512 GB SSD

● NVIDIA GeForce GTX 1660Ti

● 16 GB 2x8 RAM

## Software preparation

On the local machines which are mentioned above, AVEC will be run. JDK,MySQL, run-time environment, and their configurations are all present on our PCs (database, interface, etc.).

## Other test preparation

Information about the products were taken from some sites and prepared accordingly.

## Safety, security and privacy precautions

None

# Tests descriptions

* 1. **Main Test of AVEC**

**User Requirements test**

| **Test ID** | **T-SRS-AVEC-1** |  |
| --- | --- | --- |
| Test desc. | User creates new account. |  |
| Verif. Req. | **SRS-AVEC-001** | TEST |
| Init. Cond. | AVEC E-Commerce Software has started. |  |
| Tests inputs | Username ,Password and e-mail. |  |
| Data collection | N/A |  |
| Tests outputs | N/A |  |
| Assum & constr |  |  |
| Expected results and criteria | User created a new account. |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and eval crit** |
| 1 | Users open software. | Software successfully opened. |
| 2 | Users type their username, password and email. | User created a new account. |

| **Test ID** | **T-AVEC-TEST-2** |  |
| --- | --- | --- |
| Test description | AVEC throws the exception when a user is trying to create with the same username/e-mail. |  |
| Verified Requirement | **SRS-AVEC-001.1** | Demonstration |
| Initial conditions | There should be a username/e-mail already existing as the user is trying to create. |  |
| Tests inputs | N/A |  |
| Data collection actions | N/A |  |
| Tests outputs | N/A |  |
| Assumptions and constraints | N/A |  |
| Expected results and criteria | If the user tries creating 2 or more identical accounts, an error box should appear saying “That username/e-mail already exists.” and won't able to add to the database. |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | User creates an account with a username and e-mail. | The user just created an account and information of that account has been added to the database. |
| 2 | User creates another account with the information. | System throws an error box pops up saying that “the account already exists. If there are more than one account otherwise the account created ” |

| **Test ID** | **T-AVEC-TEST-3** |  |
| --- | --- | --- |
| Test description | AVEC will allow users to put their products on sale. |  |
| Verified Requirement | **SRS-AVEC-002** | Test |
| Initial conditions | Users must have an account. |  |
| Tests inputs | N/A |  |
| Data collection actions | N/A |  |
| Tests outputs | N/A |  |
| Assumptions and constraints | N/A |  |
| Expected results and criteria | Products on sale |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | User opens the product sale page. | Product selling page must be open. |
| 2 | User fills all required boxes. | product will be on sale. |

| **Test ID** | **T-AVEC-TEST-4** |  |
| --- | --- | --- |
| Test description | AVEC shall require the price and product description and product name to be added to the product. |  |
| Verified Requirement | **SRS-AVEC-002.1** | Test |
| Initial conditions | Software must be on running status. Users must have an account. |  |
| Tests inputs | 3000, “TXT2000”, “Graphic Card” |  |
| Data collection actions | N/A |  |
| Tests outputs | N/A |  |
| Assumptions and constraints | User logged in to his/her account. |  |
| Expected results and criteria | Product is Ready displayed. |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | User opens a product selling page. | Product selling page must be open. |
| 2 | User fills all required boxes. | If all required boxes are filled, the system publishes the product on the page. Otherwise, it must show an exception for filling the required boxes. |

| **Test ID** | **T-AVEC-TEST-5** |  |
| --- | --- | --- |
| Test description | AVEC provide to user searching ability to find product. |  |
| Verified Requirement | **SRS-AVEC-003** | Test |
| Initial conditions | Software must be on running status. Users must have an account and be logged in. |  |
| Tests inputs | “TXT2000” |  |
| Data collection actions | N/A |  |
| Tests outputs | N/A |  |
| Assumptions and constraints | User logged in to his/her account. |  |
| Expected results and criteria | Product list must be displayed. |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | User opens the search page . | Searching Page opens. |
| 2 | User writes the product name. | All products related to product name must be shown. |

| **Test ID** | **T-AVEC-TEST-6** |  |
| --- | --- | --- |
| Test description | AVEC must list and present the relevant product from the database according to the product name entered. |  |
| Verified Requirement | **SRS-AVEC-003.1** | Demonstration |
| Initial conditions | Software must be on running status. |  |
| Tests inputs | 3000, “TXT2000”, “Graphic Card” |  |
| Data collection actions | N/A |  |
| Tests outputs | N/A |  |
| Assumptions and constraints |  |  |
| Expected results and criteria | AVEC listed all related products from the database. |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | User opens the search page. | Product searching page opened. |
| 2 | User writes the product name. | Software listed all related products on screen. |

| **Test ID** | **T-AVEC-TEST-7** |  |
| --- | --- | --- |
| Test description | AVEC shall allow users to purchase the product. |  |
| Verified Requirement | **SRS-AVEC-004** | Test |
| Initial conditions | Software must be on running status and users must be logged in. |  |
| Tests inputs | N/a |  |
| Data collection actions | N/A |  |
| Tests outputs | N/A |  |
| Assumptions and constraints |  |  |
| Expected results and criteria | Product is purchased . |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | User opens the search page. | Product searching page opened. |
| 2 | User writes the product name. | Software listed all related products on screen. |
| 3 | User clicks the purchase button. | Product purchased. |

| **Test ID** | **T-AVEC-TEST-8** |  |
| --- | --- | --- |
| Test description | AVEC must control the user's balance according to the product which is tried to be bought by the user. |  |
| Verified Requirement | **SRS-AVEC-004.1** | Analysis |
| Initial conditions | Software must be on running status. |  |
| Tests inputs | N/A |  |
| Data collection actions | N/A |  |
| Tests outputs | If balance is greater than product, AVEC shows notification product purchased, If not show error notification. |  |
| Assumptions and constraints |  |  |
| Expected results and criteria | AVEC shows notification according to the situation and the status section in the database should be changed to purchased. |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | User opens the searching page. | Product searching page opened |
| 2 | User writes the product name. | The software listed all related products on the screen. |
| 3 | User tries to buy a product. | The system checks that there is sufficient balance, if it is sufficient, the product status in the database is changed to purchased. If the balance is not sufficient, an error notification is printed on the screen. |

| **Test ID** | **T-AVEC-TEST-9** |  |
| --- | --- | --- |
| Test description | AVEC allows users to update their balance. |  |
| Verified Requirement | **SRS-AVEC-005** | Test |
| Initial conditions | Software must be on running status. The user must log in. |  |
| Tests inputs | N/A |  |
| Data collection actions | N/A |  |
| Tests outputs | If balance is greater than product, AVEC shows notification product purchased, If not shows error notification. |  |
| Assumptions and constraints | Users on the balance updating page. |  |
| Expected results and criteria | Users balance updated. |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | User opens the balance page. | Balance page opened. |
| 2 | User presses the update button. | The empty box is shown on the page. |
| 3 | User types the new balance. | Balance is updated. |

| **Test ID** | **T-AVEC-TEST-10** |  |
| --- | --- | --- |
| Test description | AVEC checks whether the value entered in the Balance box is negative. |  |
| Verified Requirement | **SRS-AVEC-005.1** | Analysis |
| Initial conditions | Software must be on running status. |  |
| Tests inputs | -3999, 4000 |  |
| Data collection actions | N/A |  |
| Tests outputs | N/A |  |
| Assumptions and constraints | N/A |  |
| Expected results and criteria | If the entered value is not negative, the system will update the balance from the database if it is negative, it will warn the screen and output it. |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | User opens the balance page. | Balance page opened. |
| 2 | User presses the update button | The empty box is shown on the page. |
| 3 | User types the new balance and the system checks the value. | If the value is positive, the balance will be updated, If not, the system shows an error. |

| **Test ID** | **T-AVEC-TEST-11** |  |
| --- | --- | --- |
| Test description | AVEC allows users to see product descriptions. |  |
| Verified Requirement | **SRS-AVEC-006** | Demonstration |
| Initial conditions | Software must be on running status and the user must be logged in. |  |
| Tests inputs | N/A |  |
| Data collection actions | N/A |  |
| Tests outputs | N/A |  |
| Assumptions and constraints | N/A |  |
| Expected results and criteria | Description of Product is shown by user. |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | User opens the searching page. | The Search page is opened. |
| 2 | User presses the product. | The detailed product page is opened and the product description is shown by the user. |

| **Test ID** | **T-AVEC-TEST-12** |  |
| --- | --- | --- |
| Test description | AVEC allows users to change their password. |  |
| Verified Requirement | **SRS-AVEC-007** | Test |
| Initial conditions | Software must be on running status and the user must be logged in. |  |
| Tests inputs | “1234567”, “1234567” |  |
| Data collection actions | N/A |  |
| Tests outputs | N/A |  |
| Assumptions and constraints | N/A |  |
| Expected results and criteria | Password changed successfully. |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | User opens the user management page. | The User Management page is opened. |
| 2 | User clicks change password. | The two boxes are shown. |
| 3 | User types the new password twice. | The password changed. |

| **Test ID** | **T-AVEC-TEST-13** |  |
| --- | --- | --- |
| Test description | AVEC will check the two passwords entered are the same. |  |
| Verified Requirement | **SRS-AVEC-007.1** | Analysis |
| Initial conditions | Software must be running.. |  |
| Tests inputs | N/A |  |
| Data collection actions | N/A |  |
| Tests outputs | N/A |  |
| Assumptions and constraints | N/A |  |
| Expected results and criteria | Password must change on the database |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | User opens the user management page. | The User Management page is opened. |
| 2 | User clicks change password | The two boxes are shown. |
| 3 | User types new password twice | System takes those two passwords. |
| 4 | System must check whether two passwords are the same. | If both of the passwords are the same, Software will change the password on the database, If not, the system throws an exception. |

| **Test ID** | **T-AVEC-TEST-14** |  |
| --- | --- | --- |
| Test description | AVEC will allow the user to change a description of the Product. |  |
| Verified Requirement | **SRS-AVEC-8** | Test |
| Initial conditions | Software must be running. |  |
| Tests inputs | N/A |  |
| Data collection actions | N/A |  |
| Tests outputs | N/A |  |
| Assumptions and constraints | Product is on sale. |  |
| Expected results and criteria | User changed the description of Product. |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | User opens the products page. | The product page is opened. |
| 2 | User clicks the change product description button. | The box is shown. |
| 3 | User types new description. | The product description is changed. |

| **Test ID** | **T-AVEC-TEST-15** |  |
| --- | --- | --- |
| Test description | AVEC will allow the user to give a star product. |  |
| Verified Requirement | **SRS-AVEC-009** | Test |
| Initial conditions | Software must be running. |  |
| Tests inputs | N/A |  |
| Data collection actions | N/A |  |
| Tests outputs | N/A |  |
| Assumptions and constraints | Product is on sale. |  |
| Expected results and criteria | User gives a star to the product. |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | User opens the products page. | The product page is opened |
| 2 | User chooses a number to give a star. | The star of the product is changed according to the user’s star. |

| **Test ID** | **T-AVEC-TEST-16** |  |
| --- | --- | --- |
| Test description | AVEC will calculate the average star number of products. | Analysis |
| Verified Requirement | **SRS-AVEC-009.1** |  |
| Initial conditions | Software must be running. |  |
| Tests inputs | N/A |  |
| Data collection actions | N/A |  |
| Tests outputs | N/A |  |
| Assumptions and constraints | Product is on sale. |  |
| Expected results and criteria | Software calculated the average stars of the product and changed the star number. |  |
| **Test procedure** |  |  |
| **Step number** | **Operator actions** | **Expected result and evaluation criteria** |
| 1 | User opens the products page. | Product page is opened. |
| 2 | User chooses a number to give a star. | The system calculated the average star point and changed the star number on the database. |