REVISION HISTORY

Date	Version	Description	Author
17.10.2019	1.0	Assignment of the parts to members and moved everything to Google Docs.	Kerem Güre
22.10.2019	1.1	Added a UML Deployment Diagram	Cenker Karaörs
22.10.2019	1.2	Added Hardware preparation description.	Barış Özbaş
23.10.2019	1.3	Added some test cases	Cenker Karaörs
23.10.2019	1.4	Updated and added some test cases and updated the References	Kerem Güre
23.10.2019	1.5	Updated and added some test cases	Denizcan Özpınar, Emre Ay
23.10.2019	1.6	Did minor fixes for test tables and general organization	Kerem Güre
02.10.2019	2.0	Added a new test that confirms the users can reset their password	Kerem Güre

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1 Introduction

1.1 Document overview

This document is the software test plan of the BPP software development project. It contains the description of tests.

1.2 References

#	Document Identifier	Document Title
1	BPP-SDP	BPP Software Development Plan
2	BPP-SRS	BPP Software Requirements Specifications

1.3 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	…	…

2 Tests preparations

This section contains tasks and recommendations before executing tests.

2.1 Hardware preparation
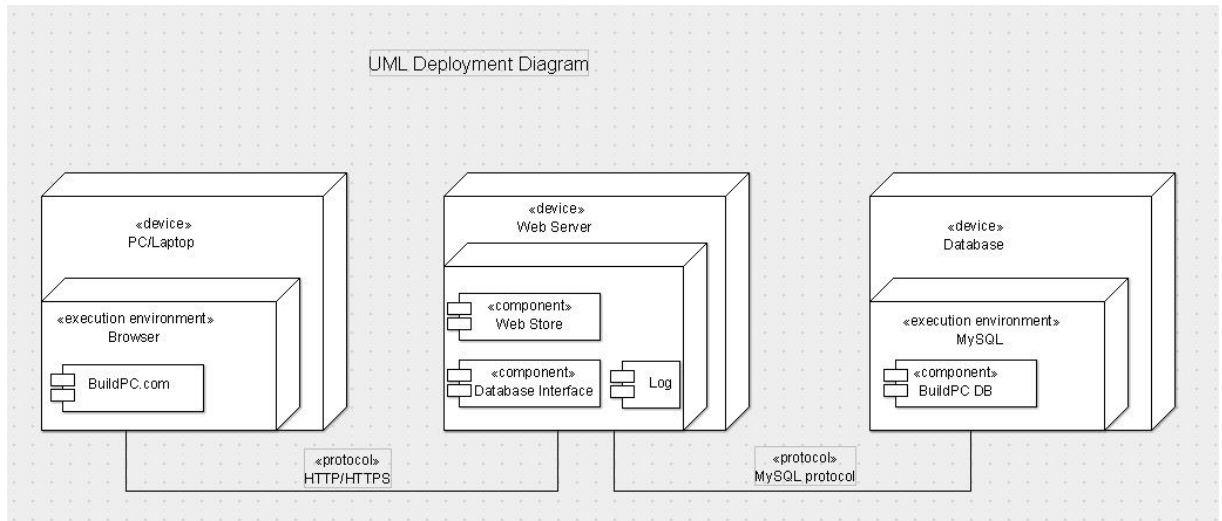
- Apache web server is configured.
- MySQL server is used between the Apache web server and database connection.
- For database management, PHPmyAdmin is used.

2.2 Software preparation

- Junit Testing Tool
- PHPunit Testing Tool
- Browser

The applications named above are to be used for testing the system.

2.3 Safety, security and privacy precautions

SQL Injection is a security concern. The precautions in place are PreparedStatements, DB Triggers.

Password and CC information is a privacy concern. The precautions in place are Bcrypt password hashing and CC hash and salting.

3 Tests descriptions

Test cases are organized in chronological order of execution.

3.1 WebApp Tests

Test ID	**T-SRS-REQ-001**	
Test desc.	Verify that the user can successfully register	
Verif. Req.	SRS-REQ-001	Demonstration
Init. Cond.	BuildPC web application is started and idle.	
Tests inputs	Username, password, full name, phone, address	
Data collection	N/A	
Tests outputs	Registration complete message	
Assum & constr	The user enters strings with the utf-8 format	
Expected results and criteria	The database must contain user and its data	
Test procedure		
Step number	**Operator actions**	**Expected result and eval crit**
1	Type following URL: buildpc.software to browser	Confirm the web page opens
2	Click the register button	The browser must redirect to the registration page
3	Enter username, password, full name, phone number, address	If all fields are filled submit button must be available
4	Click submit button	Registration complete message must be displayed

Test ID	**T-SRS-REQ-002**	
Test desc.	Verify that the user can add/remove an item to/from the basket.	
Verif. Req.	SRS-REQ-002	Demonstration
Init. Cond.	BuildPC web application is started and idle. The user has an account at the BuilPC site.	
Tests inputs	Add to/Remove from basket button click.	
Data collection	N/A	
Tests outputs	The quantity of that item in the basket.	
Assum & constr	BuildPC site has some stock for any amount.	
Expected results and criteria	Users must see the updated (add/remove item) basket.	
Test procedure		
Step number	**Operator actions**	**Expected result and eval crit**
1	Select desired items	Confirm items are selectable

2	Enter a valid amount	The amount must equal or less than the stock of the item
3	Click add to/remove from basket button	Items must be updated in the basket

Test ID	T-SRS-REQ-003	
Test desc.	Verify that the user can purchase basket	
Verif. Req.	SRS-REQ-003	Demonstration
Init. Cond.	BuildPC web application is started and idle. The user has an account at the BuilPC site.	
Tests inputs	Credit card information	
Data collection	N/A	
Tests outputs	Purchase complete message	
Assum & constr	The user has some items in the basket.	
Expected results and criteria	Purchase completed message displayed and stock is updated at DB.	
Test procedure		
Step number	**Operator actions**	**Expected result and eval crit**
1	Click to my basket button	Confirm that basket is available
2	Enter valid CC information.	Check the validity of the CC number using the Luhn Algorithm.
3	Click purchase button	Purchase complete message must be displayed and the database must add users basket to history

Test ID	T-SRS-REQ-004	
Test desc.	Verify that the user can see their history of bought products	
Verif. Req.	SRS-REQ-004	Demonstration
Init. Cond.	BuildPC web application is started and idle. The user has an account at the BuilPC site.	
Tests inputs	N/A	
Data collection	N/A	
Tests outputs	History page	
Assum & constr	The user has already purchased some items from the website.	
Expected results and criteria	Purchase completed message displayed and stock is updated at DB.	
Test procedure		
Step number	**Operator actions**	**Expected result and eval crit**
1	Click to my history button	The browser must redirect to purchased items' history.

Test ID	T-SRS-REQ-005	
Test desc.	Verify that users can update their information	
Verif. Req.	SRS-REQ-005	Demonstration
Init. Cond.	BuildPC web application is started and idle. The user has an account at the BuilPC site.	
Tests inputs	password, full name, phone, address	
Data collection	Full Name, Phone, Address, hashed password	
Tests outputs	update complete message	
Assum & constr	The user enters strings with the utf-8 format Usernames cannot be changed.	
Expected results and criteria	The database must contain users' new information.	
Test procedure		
Step number	**Operator actions**	**Expected result and eval crit**
1	Click my profile button	Confirm that users can preview their current information
2	Change the desired fields.	New information must be displayed
3	Click submit button	The database must update the related columns.

Test ID	T-SRS-REQ-006	
Test desc.	Verify that users can see all available products on the website	
Verif. Req.	SRS-REQ-006	Demonstration
Init. Cond.	BuildPC web application is started and idle.	
Tests inputs	N/A	
Data collection	N/A	
Tests outputs	Updated homepage.	
Assum & constr	The website has some items	
Expected results and criteria	Homepage updates itself with item blocks(name,photo,desc,price).	
Test procedure		
Step number	**Operator actions**	**Expected result and eval crit**
1	Type the following URL: buildpc.software to browser	Confirm the website is accessible and shows items on the homepage
2	Select a category	All items in that category must be displayed

Test ID	**T-SRS-REQ-007**	
Test desc.	Verify that users can reset their password.	
Verif. Req.	SRS-REQ-007	Demonstration
Init. Cond.	BuildPC web application is started and idle.	
Tests inputs	A new password.	
Data collection	Hashed password.	
Tests outputs	Password Reset confirmation page.	
Assum & constr	User has an account. The new password fulfills the strength expected.	
Expected results and criteria	A page confirming that password change is successful.	
Test procedure		
Step number	**Operator actions**	**Expected result and eval crit**
1	Type the following URL: buildpc.software to browser	Confirm the website is accessible.
2	Click "Login" Button	Confirm Login page is accessible.
3	Click "Forgot Your Password?" Button	The page must redirect to password restoration section.
4	Fill in the email address of which the user registered with.	The email entered must be displayed.
5	Open the mail sent by the BuildPC.	Confirm the email is received.
6	Click the link in the mail.	Confirm the link is valid.
7	Put the new password in the fields.	New password must fulfill the strength checker algorithm.
8	Click Submit button.	The page of which shows confirmation of password change.

3.2 PBMT Tests

Test ID	**T-SRS-PBMT-001**	
Test desc.	Verify that the program can add items.	
Verif. Req.	SRS-BPP-PBMT-001	Demonstration
Init. Cond.	PcBuild Management Tool is started and idle.	
Tests inputs	Item name, description, stock, category, price, picture.	
Data collection	Item name, description, stock, category, price, picture.	
Tests outputs	Display message that shows transaction is completed.	
Assum & constr	All fields are filled, the Item name is unique.	

Expected results and criteria	Items are successfully added to the database.	
Test procedure		
Step number	**Operator actions**	**Expected result and eval crit**
1	Open the PcBuild Management Tool.	Confirm the tool is available.
2	Click the item manager button.	The program must redirect to the Item management page.
3	Click the add item button.	Program must redirect to add item window.
4	Enter item name, description, stock, category, price, picture	If all fields are filled submit button must be available.
5	Click submit button	Item must be successfully inserted into the database.

Test ID	**T-SRS-PBMT-002**	
Test desc.	Verify that users can see all registered users.	
Verif. Req.	SRS-BPP-PBMT-002	Test
Init. Cond.	PcBuild Management Tool is started and idle.	
Tests inputs	N/A	
Data collection	N/A	
Tests outputs	List of all users.	
Assum & constr	The database has some users. The operation completes under 2 seconds.	
Expected results and criteria	View all registered users.	
Test procedure		
Step number	**Operator actions**	**Expected result and eval crit**
1	Open the PcBuild Management Tool	Confirm the tool is available.
2	Click the list users button.	The program must redirect to the users' list page.

Test ID	**T-SRS-PBMT-003**	
Test desc.	Verify that all items are listed	
Verif. Req.	SRS-BPP-PBMT-003	Test
Init. Cond.	PcBuild Management Tool is started and idle.	
Tests inputs	N/A	
Data collection	N/A	
Tests outputs	Listed items	
Assum & constr	The database has some items	
Expected results and criteria	List of items is displayed The operation completes under 2 seconds.	

Test procedure		
Step number	**Operator actions**	**Expected result and eval crit**
1	Open the PcBuild Management Tool	Confirm the tool is available.
2	Click list items button	The program must redirect to the items list page