Use Cases

for

Product Warranty App

Version 1.1

Prepared by

Syed Khandker, Esko Reivari

Sandesh Hyoju, Timo Tammi & Henri Murtonen

University of Jyväskylä

December 15th, 2014

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
| Syed Khandker | 09/11/14 | Initial draft | 1.0 draft 1 |
| Henri Murtonen | 05/12/14 | Corrected use cases list based on feedback | 1.1 |

The various user classes identified the following use cases and primary actors for the product warranty app:

|  |  |
| --- | --- |
| Primary Actor | Use Cases ID |
| App end user: the owner of the item or service which the warranty applies to | 1. Save product information 2. Modify saved product information 3. Remove expired information 4. Browse information 5. Adjust app settings 6. Get notification about expiring warranty 7. React to notification |
| Warranty provider | 8. Check warranty validity |

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID: | 1 |  |  |
| Use Case Name: | Save Product Information |  |  |
| Created By: | Syed Khandker | Last Updated By: | Syed Khandker |
| Date Created: | October 20, 2014 | Date Last Updated: | November 07, 2014 |

|  |  |
| --- | --- |
| Actors: | User |
| Description: | Saving the information regarding product e.g.  Item number, product name, Description of product, Buying date, Date of Expiry / void warranty, photo of the receipt, address of the shop. |
| Trigger: | Programming code |
| Preconditions: | 1. Installed app in supported device  (or) 2. Logged into user account through browser. |
| Postconditions: | 1. Product information is saved |
| Normal Flow: | **1.0 Saving data**   1. Log in 2. Create new record 3. Fill the mandatory field. 4. Capture the photo by mobile or upload by browser (optional) 5. Save 6. Exit |
| Alternative Flows: | **1.1  Saving multiple record**   1. User wants to create another record 2. Return to step 2 |
| Exceptions: | **3.0.E.1 Product expiry date past then current date (at step 2)**   1. system warn user that product expiry date is already past 2. User recheck the record 3. If expiry date older than current date than system accept the record 4. Otherwise system keep warning to edit or cancel   **3.0.E.2 Unknown Language input (at step 3)**   1. System inform unsupported language input 2. User remove the input 3. User input supported language 4. System accept   **3.0.E.3  Disk full, can not be saved (at step 2 )**   1. System warn user about low disk space 2. System doesn’t allow new record 3. System terminate use case.   **3.0.E.4  Photo can not be taken / uploaded ( at step 4)**   1. System warns unsupported file format / oversize or undersize / low resolution camera. 2. user recheck the photo properties 3. If photo met the upload criteria the upload accepted 4. Otherwise keep warning to remove photo   **3.0.E.5  Record can not be created or saved (at step 2 or 5)**   1. System face internal error 2. System warns user to try after sometime 3. System terminate use case |
| Includes: | None |
| Priority: | High |
| Frequency of Use: | Depends on user |
| Business Rules: | BR-1, BR-8, BR-7 |
| Special Requirements: | 1. User will be able cancel any record any time. 2. User can view the total record log by selecting dd.mm.yyyy |
| Assumptions: | 1. 2 GB disk space will be last at least 1 year |
| Notes and Issues: | 1. Add record request from two device ( e.g. Mobile and browser) at exact same time will create exception and tell user to submit after few seconds. 2. Any request from endpoint user to server will be saved according Finnish Standard Time ( GMT +2 / GMT +3), even though user is from another country. 3. All Unicode supported character will be allowed as input language. 4. File size minimum  500 KB maximum 8MB. 5. Image allowed format JPG, TIF, PNG, GIF, BMP |

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID: | 4 |  |  |
| Use Case Name: | Browse information |  |  |
| Created By: | Timo Tammi | Last Updated By: | Timo Tammi |
| Date Created: | November 2, 2014 | Date Last Updated: | November 07, 2014 |

|  |  |
| --- | --- |
| Actors: | User |
| Description: | Browsing and searching the warranty information. |
| Trigger: | Programming code |
| Preconditions: | 1. Installed app in supported device  (or) 2. Logged into user account through browser. |
| Postconditions: | 1. Product information details is shown. It includes product name, warranty expiration date and picture of receipt |
| Normal Flow: | **1.0 Browsing information**   1. List of all warranty information items is shown. 2. User selects one of the items. 3. Product information is shown. |
| Alternative Flows: | **1.1  Browsing information with the search text**   1. User writes search text. 2. During the writing, list of possible matches is shown 3. User selects one of the items. 4. Product information is shown. |
| Exceptions: | **3.0.E.1 No warranty information found (at phases 1.1.2)**   1. Text “no result” is shown to user   **3.0.E.2 No warranty information is shown (at phases 1.0.3 or 1.1.4)**   1. System face internal error 2. System warns user to try after sometime |
| Includes: | None |
| Priority: | High |
| Frequency of Use: | Depends on user |
| Business Rules: | BR-1, BR-8, BR-9 |
| Special Requirements: |  |
| Assumptions: |  |
| Notes and Issues: | 1.   Length of the search text can be as long as the warranty information name. |

# Business Rules for Product Warranty App

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Rule Definition | Type of Rule | Static or Dynamic | Source |
| BR-1 | Project work, customer service, and other activities will be done at official time 10 am to 5pm according Finnish Standard time. Including daylight  saving time, GMT +2 or +3 | Constraint | Dynamic | Project Manager |
| BR-2 | Version 1.0 should be released within first 3 months of the project. | Constraint | Dynamic | Project Manager |
| BR-3 | Customers are allowed to pay via paypal, visa, mastercard. | Constraint | Static | Accounting |
| BR-4 | Any complaint must be answered  within 2 working days. | Constraint | Dynamic | Project Manager |
| BR-5 | Automatically download option will be enabled after successful payment | Fact | Dynamic | Project Manager |
| BR-6 | In case any payment from customer is received but problem in downloading, customer would get download link by email | Fact | Dynamic | Project Manager |
| BR-7 | each user will be given 10 GB space in Server. | Constraint | Static | Technical implementation |
| BR-8 | Users are allowed to access their account by the app or web browser | Fact | Static | Project Manager |
| BR-9 | User’s info is very sensitive, must be stored with 128 bit encryption | Constraint | Static | Security policy |
| BR-10 | Personal identification, financial information or organizational secret code require 128-bit encryption. | Constraint | Static | Security policy |
| BR-11 | Working platforms are Android, iOS, Windows Phone. | Constraint | Static | Project Manager |
| BR-12 | Warranty receipt must be saved in a known file format. These include jpeg, tif, gif, png, bmp. | Constraint | Static | Technical implementation |
| BR-13 | Maximum file size for warranty receipt image is 8 MB. | Constraint | Static | Technical implementation |
| BR-14 | If a user has no currently valid warranties and does not use the app for 3 years, their data will be removed from the database in order to preserve space. | Fact | Dynamic | Project Manager |
| BR-15 | When browsing warranty information, the user can only see the warranties they have added themselves (not others). | Constraint | Dynamic | Project Manager, Security policy |