**ASSESSMENT BRIEF**

*One assessment brief per learner, per assessment. Assessment brief \_4\_\_ of \_\_7\_\_*

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| **Module Title & Code:** | Software Architecture 5N2772 |
| **Course Title & Code:** | Software Development 5N0529 |
| **Assessment Technique:** | Skills Demonstration 6 |
| **Assessment Weighting:** | 10% |
| **Assessment Title:** | Test Cases |
| **Guidelines:** | Test the design specification of a new information system based on a provided use‐case |
| **Assessment Criteria:** | Derive a test case from a provided use case to include a range of elements |

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| **Individual Assessment Criteria**  *Individual learning outcomes addressed (where applicable, show integrated mapping)* | **Evidence Location** | **Max Mark** | **Learner Mark** |
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| Derive a test case from a provided use case to include a range of elements | Report | **100** |  |
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| **Date Issued:** | **19 October 2020** |
| **Draft Date:** |  |
| **Submission Date:** | **26 October 2020** |
| **Assessor/Educator(s):** | **Sean Rattigan** |

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| **Learner Authorship Statement:**  I, Taha Aflouk confirm that this is my own original work. I have referenced and given citations correctly and acknowledged all sources of information that is not my own original work. | |
| **Learner Signature:** | **Date Submitted:**  **26/10/20** |

# Use Case Table

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| Element | Login |
| No. | CHECKOUT\_01 |
| Application | Self-Service Checkout Machine |
| Actor involved | Customer |
| Description | Checkout machine that take code of item that show the customer the price of the item then the customer can buy the item from shop by themselves without |
| Precondition(s) | Has the Light green to start  Has to have an item to scan  Has to have cash or card  System has connected to Electricity  System has connection to the server |
| PostCondition(s) | Machine is on  Connecting to the server |
| Trigger | Start scanning |
| Basic Flow | 1. User starts 2. System start the timer 3. user enter item 4. System shows prices and the item name with (desc summary) 5. User put item on the machine scale   Note: repeat the scanning until last item   1. User selects pay now 2. System shows pay methods 3. User picks a method to pay 4. User insert card 5. User enter password 6. System validate the card 7. System verify 8. System checks money =with the item price 9. The system asks (do you want receipt?) 10. User pick (yes) 11. System prints receipt 12. System ends operation |
| Alternate flow(s) | 3a. User enter item (if item by kilogram)   1. If user want to enter items by weight system will ask about type. 2. User have to put the items on the scale. 3. Then the machine will read the item weight and then print the type and the price   3b. if user enter item   1. If item need someone to provide that the user is over age 2. If the customer did not provide their age the system will cancel the operation   3c. user enter item   1. User can start scanning item without pressing on start button   5a. if user put item on the machine   1. When the user scans the barcode of the item on the system 2. The user has to put it on the scale of the machine on the other side of the machine 3. The machine will scale the item and compare the weight of the item that on the scale with the one which has been saved on the system if not match 4. The system will wait for a while to let the user put item on scale   8a. if User wants to pay by tap   1. System asks to read the card 2. User will pass the card on the reader of the machine 3. if the system failed read then user can repeat the step   8b. if user want to tap card   1. system asks to read the card then the user will pass the card on the machine 2. if the user does not have enough money or does not have money system will show message or say something like ###   8b. User can pay cash   1. if the machine does not have enough from a type of coins or note it will send message that the machine needs something or when its full   13a. System checks the money=with the item price   1. when the user enters the pin the system will check if the account has enough balance to pay the item   #16a. system prints receipt   1. If the machine does not have enough or pass the limit receipt paper 2. The system will send message or show message the machine needs that |
| Exception flow(s) | #If was not connection system will show a message out of service  5a. when user put item on the machine   1. When the user enters the item type and put it on the machine to scale it 2. Machine will take the weight and the user will stop scaling the system will show price and type 3. The user will have to put the item on the other side of the machine will take the weight another time and compare it between the weight of item that the user entered it and when the user put it on the other side of the machine 4. System will show error message says put item on the machine   Note: if user entered 1kg of something he will take them and put them back on the scale other side to make sure it matchs  11a. if the PIN is invalid and read failed   1. The system will show an Error message 2. And ask to enter the pain again 3. Use case stope on a count number   11b. if card is invalid and read failed   1. System will show the card is invalid and the use case failed at 11   12a. if customer want to pay by tap the card   1. If customer went to tap and the system did not read the card properly then the system will show a message says “Read failed”. 2. The system will wait for certain time.   16a. if customer wants to pay cash   1. The machine will check if money is real then the operation will continue normal if (money) not real then the system will block the operation and send report. 2. If the machine does not have enough change like type of coins or something like note then the system will send message to the person. 3. The use case cancel at 15. |

# Derived Test Cases

Note the machine must be connected to electricity and to the server first thing

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| **TC** | **Steps** | **Expected Result** |
| TC | User insert valid card | When everything is correct we get a message says thank you for “shopping” |
| 1 | User insert valid pin |  |
| 2 | Pin<=5 |  |
| 3 | Weigh1t of item is equal to weight2 when its on the other side |  |
| 4 |  |  |
| 5 |  |  |

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| --- | --- | --- |
| **TC** | **Steps** | **Expected Result** |
| TC | If user insert invalid card or invalid payment | The system will show a message says “not successful” |
| 1 | And valid pin |  |
| 2 | Pin<=5 |  |
| 3 | Weight1 = weight2 |  |
| 4 |  |  |
| 5 |  |  |

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| --- | --- | --- |
| **TC** | **Steps** | **Expected Result** |
| TC | If user enter a valid card | The system will show a message “please try again later” |
| 1 | And entered a valid pin |  |
| 2 | But the pin > max |  |
| 3 | Weight1 = weight2 |  |
| 4 |  |  |
| 5 |  |  |

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| --- | --- | --- |
| **TC** | **Steps** | **Expected Result** |
| TC | If user entered valid card | The system will show a message says “please put your item on the machine” |
| 1 | And entered a valid pin |  |
| 2 | And the pin is less or equal to the max |  |
| 3 | But the weight is not equal to when they move it |  |
| 4 |  |  |
| 5 |  |  |

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| --- | --- | --- |
| **TC** | **Steps** | **Expected Result** |
| TC | If user tap a valid card | The system will show a message says “done” or “successful “ |
| 1 | And the reader read the card right |  |
| 2 | The card has the right amount of money |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |

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| --- | --- | --- |
| **TC** | **Steps** | **Expected Result** |
| TC | If user insert valid money | The machine will give back the change if there was and display a message says “successful” |
| 1 | System will check the money |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |

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| --- | --- | --- |
| **TC** | **Steps** | **Expected Result** |
| TC | If the user insert invalid money | System will do a report or send message to the responsible and say a message “invalid money” |
| 1 | System will check the money and stop the operation |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |