**CST8132 – Object-Oriented Programming**

**Lab 7 – Test Plan <** Lab 9: Store Management System  - ArrayList - Generic Collections**>**

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**Feature: Read number of employees**

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| **Test #** | **Description** | **Input** | **Expected output/result** | **Actual Output** | **Status (Pass/Fail)** |
| T1 | Invalid input: a string | aaa | Input Mismatch Exception | Input Mismatch Exception | Fail |
| T2 | Invalid input: a double | 8.5 | Input Mismatch Exception | Input Mismatch Exception | Fail |
| T3 | Invalid input: Zero | 0 | How many employees do you have? | How many employees do you have? | Fail |
| T4 | Invalid input: negative integer | -5 | Negative ArraySize Exception | Negative ArraySize Exception | Fail |
| T5 | Valid input: positive integer (not 0) | 3 | Displays options menu | Displays options menu | Pass |

**Feature: <Chose an option from menu>**

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| **Test #** | **Description** | **Input** | **Expected output/result** | **Actual Output** | **Status (Pass/Fail)** |
| T1 | Invalid selection: a string | bbb | Input Mismatch Exception | Input Mismatch Exception | Fail |
| T2 | Invalid selection: a double | 6.7 | Input Mismatch Exception | Input Mismatch Exception | Fail |
| T3 | Invalid selection: negative integer | -5 | Invalid option.... please try again... | Invalid option.... please try again... | Fail |
| T4 | Invalid selection: positive integer other than 1,2,3,4 | 7 | Invalid option.... please try again... | Invalid option.... please try again... | Fail |
| T5 | Valid selection: 1 | 1 | Displays employee types menu | Displays employee types menu | Pass |
| T6 | Valid selection: 2 | 2 | Read information from the file and display options menu | Read information from the file and display options menu | Pass |
| T7 | Valid selection: 3 | 3 | Prints Store Management System database | Prints Store Management System database | Pass |
| T8 | valid selection: 4 | 4 | Shutdown the program | Shutdown the program | Pass |

**Feature: <Select employee’s type>**

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| **Test #** | **Description** | **Input** | **Expected output/result** | **Actual Output** | **Status (Pass/Fail)** |
| T1 | Invalid selection: a string | bbb | Input Mismatch Exception | Input Mismatch Exception | Fail |
| T2 | Invalid selection: a double | 6.7 | Input Mismatch Exception | Input Mismatch Exception | Fail |
| T3 | Invalid selection: negative integer | -5 | Invalid type.... please try again... | Invalid type.... please try again... | Fail |
| T4 | Invalid selection: positive integer other than 1,2 | 3 | Invalid type.... please try again... | Invalid type.... please try again... | Fail |
| T5 | Valid selection: 1 | 1 | Reads regular employee’s properties | Reads regular employee’s properties | Pass |
| T6 | Valid selection: 2 | 2 | Reads contractor employee’s properties | Reads contractor employee’s properties | Pass |

**Feature: <Read Employee Number>**

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| **Test #** | **Description** | **Input** | **Expected output/result** | **Actual Output** | **Status (Pass/Fail)** |
| T1 | Invalid input: a string | ggg | Input Mismatch Exception | Input Mismatch Exception | Fail |
| T2 | Invalid input: a double | 54.5 | Input Mismatch Exception | Input Mismatch Exception | Fail |
| T3 | Invalid input: Zero | 0 | Invalid employee number.... please try again... | Invalid employee number.... please try again... | Fail |
| T4 | Invalid input: negative integer | -5 | Invalid employee number.... please try again... | Invalid employee number.... please try again... | Fail |
| T5 | Valid input: positive integer (not 0) | 7890 | Enter first name: | Enter first name: | Pass |

**Feature: <Read regular Employee’s phone Number >**

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| **Test #** | **Description** | **Input** | **Expected output/result** | **Actual Output** | **Status (Pass/Fail)** |
| T1 | Invalid input: a string | uuu | Input Mismatch Exception | Input Mismatch Exception | Fail |
| T2 | Invalid input: a double | 324.5 | Input Mismatch Exception | Input Mismatch Exception | Fail |
| T3 | Invalid input: Zero | 0 | Invalid phone number.... please try again... | Invalid phone number.... please try again... | Fail |
| T4 | Invalid input: negative integer | -5 | Invalid phone number.... please try again... | Invalid phone number.... please try again... | Fail |
| T5 | Valid input: positive integer (not 0) | 1233456 | Enter annual salary | Enter annual salary | Pass |

**Feature: <Read contractor Employee’s phone Number >**

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| **Test #** | **Description** | **Input** | **Expected output/result** | **Actual Output** | **Status (Pass/Fail)** |
| T1 | Invalid input: a string | uuu | Input Mismatch Exception | Input Mismatch Exception | Fail |
| T2 | Invalid input: a double | 324.5 | Input Mismatch Exception | Input Mismatch Exception | Fail |
| T3 | Invalid input: Zero | 0 | Invalid phone number.... please try again... | Invalid phone number.... please try again... | Fail |
| T4 | Invalid input: negative integer | -5 | Invalid phone number.... please try again... | Invalid phone number.... please try again... | Fail |
| T5 | Valid input: positive integer (not 0) | 1233456 | Enter hourly rate | Enter hourly rate | Pass |

**Feature: <Read salary>**

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| **Test #** | **Description** | **Input** | **Expected output/result** | **Actual Output** | **Status (Pass/Fail)** |
| T1 | Invalid input: a string | www | Input Mismatch Exception | Input Mismatch Exception | Fail |
| T2 | Invalid input: negative double | -5.7 | Invalid salary amount.... please try again... | Invalid salary amount.... please try again... | Fail |
| T3 | Invalid input: zero | 0 | Invalid salary amount.... please try again... | Invalid salary amount.... please try again... | Fail |
| T4 | Valid input: positive double (not 0) | 34 | Display options menu | Display options menu | Pass |

**Feature: <Read hourly Rate>**

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| **Test #** | **Description** | **Input** | **Expected output/result** | **Actual Output** | **Status (Pass/Fail)** |
| T1 | Invalid input: a string | www | Input Mismatch Exception | Input Mismatch Exception | Fail |
| T2 | Invalid input: negative double | -5.7 | Invalid hourly rate and number of hours worked inputs.... please try again... | Invalid hourly rate and number of hours worked inputs.... please try again... | Fail |
| T3 | valid input: double | 7.8 | Enter hours worked | Enter hours worked | Pass |

**Feature: <** **Read** **number of hours worked>**

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| **Test #** | **Description** | **Input** | **Expected output/result** | **Actual Output** | **Status (Pass/Fail)** |
| T1 | Invalid input: a string | algonquin | Input Mismatch Exception | Input Mismatch Exception | Fail |
| T2 | Invalid input: negative double | -5.7 | Invalid hourly rate and number of hours worked inputs.... please try again... | Invalid hourly rate and number of hours worked inputs.... please try again... | Fail |
| T3 | Invalid input: zero | 0 | Invalid hourly rate and number of hours worked inputs.... please try again... | Invalid hourly rate and number of hours worked inputs.... please try again... | Fail |
| T4 | Valid input: positive double (not 0) | 100909 | Enter number of hours worked: | Enter number of hours worked: | Pass |

**Feature: <** **Read data from the file>**

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| **Test #** | **Description** | **Input** | **Expected output/result** | **Actual Output** | **Status (Pass/Fail)** |
| T1 | Invalid input: Wrong data format | Change the file data format | Data is damaged | Data is damaged | Fail |
| T2 | Invalid input: Wrong Path | Wrong Path | File Not Found  Scanner Object is null | File Not Found  Scanner Object is null | Fail |
| T3 | Valid input: Right path & right data format | Right path & right data format | Option menu | Option menu | pass |

**Feature: <** **Check the remaining number of employees>**

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| **Test #** | **Description** | **Input** | **Expected output/result** | **Actual Output** | **Status (Pass/Fail)** |
| T1 | Invalid input: option 3  from the first displayed menu | Option=3 | Empty table | Empty table | pass |
| T2 | Invalid input: option 1 or 2 when all declared employee’s details are entered | option =1, 2 | Reads additional employee’s details | Reads additional employee’s details | pass |
| T3 | Invalid input: option 2 when the number of remaining employees is less than the number of employees listed in the file | 2 | Reads details of all employees in the file | Reads details of all employees in the file | pass |
| T4 | Valid input: option 3  After at least one employee object is entered | Option=3 | Print store database | Print store database | Pass |
| T5 | valid input: option 1 or 2 when we didn’t reach the declared number of employees | option =1, 2 | Read employee object information | Read employee object information | Pass |