**PDA: Software Development**

**Level 8**

**Student Evidence Checklist**

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| **Cohort** | G5 |

The evidence required can be taken from your assignments, homework that you have completed on your own or by creating a specific example for the PDA.

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| **Week 2** | **Unit** | **Ref.** | **Evidence** | **Done** |
| I & T | I.T 5 | Demonstrate the use of an array in a program. Take screenshots of:  \*An array in a program  \*A function that uses the array  \*The result of the function running |  |
|  |  | The stops Array is searched by the select function for the string Falkirk High and then returns the string Falkirk high because the string exists in the stops Array. |  |
| I & T | I.T 6 | Demonstrate the use of a hash in a program. Take screenshots of:  \*A hash in a program  \*A function that uses the hash  \*The result of the function running |  |
|  |  | This prints the value in the users hash for [“Jonathan”][:Twitter] |  |
| I & T |  | Static and Dynamic testing task A |  |

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| **Week 3** | **Unit** | **Ref.** | **Evidence** | **Done** |
| I & T | I.T 3 | Demonstrate searching data in a program. Take screenshots of:  \*Function that searches data  \*The result of the function running |  |
|  |  | https://i.gyazo.com/f02b6e30e9e2c118010d49b24689049a.png  This function calculates the total value of the stock and the output is shown in the HTML view which there is a screenshot of below.  https://i.gyazo.com/70e3964441c5eb0b807196aa9006e506.png |  |
| I & T | I.T 4 | Demonstrate sorting data in a program. Take screenshots of:  \*Function that sorts data  \*The result of the function running  This function sorts the artists in ascending alphabetical order and you can see them displayed on the website screenshot in this order. |  |
|  |  |  | https://gyazo.com/cc2b0bce61b899dcdb0b3e7f7efcceca.png  https://i.gyazo.com/da0028612b0f7c0807c2d8f605309c43.png |  |

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| **Week 5** | **Unit** | **Ref.** | **Evidence** | **Done** |
| A & D | A.D 1 | A Use Case Diagram |  |
|  |  | https://i.gyazo.com/3e6454d0b3d520b18236b3953e1d23c3.png  This is a use case diagram for my records store project. |  |
| A & D | A.D 2 | A Class diagram. |  |
|  |  | https://i.gyazo.com/955309173c37ea5a99b9fd5c62145281.png  This is a class diagram for my records the project there is an artist class and an album class. |  |
| A & D | A.D 3 | An Object diagram. |  |
|  |  | https://i.gyazo.com/84062889ccae64e0aae4a659b74e835e.png  This is an object diagram for my record the project it shows an artist and album object |  |
| A & D | A.D 4 | An Activity Diagram |  |
|  |  | Above is an activity diagram for my record store project |  |
| A & D | A.D 6 | Produce an Implementations Constraints plan detailing the following factors:  \*Hardware and software platforms  \*Performance requirements  \*Persistent storage and transactions  \*Usability  \*Budgets  \*Time |  |
|  |  | https://i.gyazo.com/8325ce6703c9c33cec39a65ddd116b95.png |  |
| P | P 5 | Create a user sitemap. |  |
|  |  | https://i.gyazo.com/003a787a64eaf25b16f385618dd2b117.png  This is a site map for my record store project. |  |
| P | P 6 | Produce two wireframe designs. |  |
|  |  | https://i.gyazo.com/de65a4c4fe40a77a90a94b479ecbca22.png  https://i.gyazo.com/f2ce6c64db71427f4666f7de239042a4.png  The first wireframe shows the inventory page for my records the project and the 2nd wireframe shows the new album page for my record the project. |  |
| P | P 10 | Take a screenshot of an example of pseudocode for a function. |  |
|  |  | https://i.gyazo.com/cee270329c4e2d1035cfbfa244bfc2bd.png  This pseudocode for this function which sets the stock level of an album in my record the project is in the comments of the code which is the text that is grey. |  |
| P | P 13 | Show user input being processed according to design requirements. Take a screenshot of:  \* The user inputting something into your program  \* The user input being saved or used in some way |  |
|  |  | https://i.gyazo.com/b22f5032336f671c46c9379044639a86.png  This shows the user entering new album data in the form on the new album page of my records the project and it is saved when the user clicks the add new album button. |  |
| P | P 14 | Show an interaction with data persistence. Take a screenshot of:  \* Data being inputted into your program  \* Confirmation of the data being saved |  |
|  |  | https://i.gyazo.com/9d628652da3506d1c2b19cbd5d2f423d.png  This shows the data entered in the new album page is persisted and displayed on the inventory page. |  |
| P | P 15 | Show the correct output of results and feedback to user. Take a screenshot of:  \* The user requesting information or an action to be performed  \* The user request being processed correctly and demonstrated in the program |  |
|  |  | Clicking high stock shows only the albums in high stock on high stock page  https://i.gyazo.com/dc58d8a644912ca955bf29da41bd665d.png  https://i.gyazo.com/eadc708ae47f4333a48005c38f44a1e4.png |  |
| P | P 18 | Demonstrate testing in your program. Take screenshots of:  \* Example of test code  \* The test code failing to pass  \* Example of the test code once errors have been corrected  \* The test code passing |  |
|  |  |  | https://i.gyazo.com/668742c73e17ef98203fbb9fd694a4e9.png  Test code that will fail  https://i.gyazo.com/bb28f94ec67da5ea1ad5305a97f700f2.png  https://i.gyazo.com/510e2a2eaee4d4f4c9ba18c5187c3a8c.png  Error in test code corrected  https://i.gyazo.com/108d75d3d225c7a0e9b6686b7d714f94.png  Test code passing  https://i.gyazo.com/4a623068a5d075978bc03549ad96b38b.png |  |

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| **Week 10** | **Unit** | **Ref.** | **Evidence** | **Done** |
| I & T | I.T 7 | Demonstrate the use of Polymorphism in a program. |  |
|  |  | The printer class implements IConnect interface which makes the printer object polymorphic so it can be added to the IConnect ArrayList in the network class, screenshots below.  https://i.gyazo.com/315b0284108cc549563ccd4562c558fb.png  https://i.gyazo.com/71208b9a7ed909eb91f21d0e6fba3b77.png  https://i.gyazo.com/cbbc0269c5a8454cc5802e955dd58d7c.png |  |
| A & D | A.D 5 | An Inheritance Diagram |  |
|  |  | https://i.gyazo.com/c7373334049d1bc4f7efc321186cfa5d.png  Manager and engineer inherit from Employee, it’s properties and methods. |  |
| I & T | I.T 1 | Take a screenshot of an example of encapsulation in a program. |  |
|  |  | https://i.gyazo.com/3bd5a47488f8de793cee510d56c036fa.png  This shows encapsulation in the network class |  |
| I & T | I.T 2 | Take a screenshot of the use of Inheritance in a program. Take screenshots of:  \*A Class  \*A Class that inherits from the previous class  \*An Object in the inherited class  \*A Method that uses the information inherited from another class. |  |
|  |  | **Employee class contains properties for all types of employee.**  https://i.gyazo.com/c5b0ca973cdb59ea7dff4d0c1713de4a.png  The manager class inherits from the Employee class so it has all the same properties and the properties defined in Manager class.  https://i.gyazo.com/557131ca1ed1a00eb66682bb820fbe7b.png  Test showing you can get the firstfName property in Manager.  https://i.gyazo.com/a211758f633c053759fc0e0dcf31d6bd.png  Showing hasName test passing in Manager class.  https://i.gyazo.com/762d57da88f67c959c8716a0c97c66c5.png |  |
| P | P 11 | Take a screenshot of one of your projects where you have worked alone and attach the Github link. |  |
|  |  | <https://github.com/rdm100/record_store> |  |
| P | P 12 | Take screenshots or photos of your planning and the different stages of development to show changes. |  |
|  |  |  | A screenshot of a cell phone  Description generated with very high confidence  Proto-persona used for planning periodic table project  A close up of a whiteboard  Description generated with high confidence  Wireframe sketch and components sketch used for planning project.  A screenshot of a cell phone  Description generated with very high confidence  User journey used for planning project.  https://i.gyazo.com/4373b7179f74b2b2c004b128f7d975a5.png  Periodic table looked like this before popup window was added to display element information and before correct sizing had been added to each element button.  https://i.gyazo.com/a1a825b8deac22f7705b5e65578f0dea.png  Periodic table looked like this after addition transform rotate(360deg) css to button on hover.  https://i.gyazo.com/f18efdbd5303d0cb52bcf242d96e34fe.png  Periodic table when finished no longer has sidebar showing element information, instead a popup box appears when clicking an element which contains all the information about the element. Correct sizing was added for each element button. |  |

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| **Week 12** | **Unit** | **Ref.** | **Evidence** | **Done** |
| I & T |  | Unit, integration and acceptance testing task B |  |
| P | P 16 | Show an API being used within your program. Take a screenshot of:  \* The code that uses or implements the API  \* The API being used by the program whilst running |  |
|  |  |  | https://i.gyazo.com/af740ef63c7df064188aaa0ceb8d55e5.png  The code above fetches all information from the API.  The details in every element square eg name, abbreviation etc are populated from api.  https://i.gyazo.com/f18efdbd5303d0cb52bcf242d96e34fe.png |  |

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| **Week 14** | **Unit** | **Ref.** | **Evidence** | **Done** |
| P | P 1 | Take a screenshot of the contributor’s page on Github from your group project to show the team you worked with.  My commits are so low because the branch I was working on had problems being merged so I slacked my code across. |  |
|  |  | https://i.gyazo.com/1209df0cce4c456ccc4256d450ec669c.png  My commits are so low because the branch I was working on had problems being merged so I slacked my code across. |  |
| P | P 2 | Take a screenshot of the project brief from your group project. |  |
|  |  | https://i.gyazo.com/68006b75845fc26c2309b765a9b240af.png  https://i.gyazo.com/f1776e38d6f285476036b24e3ddc17d8.png |  |
| P | P 3 | Provide a screenshot of the planning you completed during your group project, e.g. Trello MOSCOW board. |  |
|  |  | https://i.gyazo.com/78de898481373576d98f8d4c6f743972.png  Trello board used for planning tasks in periodic table project. |  |
| P | P 4 | Write an acceptance criteria and test plan. |  |
|  |  | Screenshots below  A screenshot of a cell phone  Description generated with very high confidence  A screenshot of a cell phone  Description generated with very high confidence |  |
| P | P 7 | Produce two system interaction diagrams (sequence and/or collaboration diagrams). |  |
|  |  |  |  |
| P | P 8 | Produce two object diagrams.  Object diagram from Java group shop project |  |
|  |  | Food object diagram  https://i.gyazo.com/035f6422aaa3e0b354c3c15b69bf7edf.png  Engineer Object diagram  https://i.gyazo.com/196a99448a980a23a0b4db946017496c.png |  |
| P | P 9 | Select two algorithms you have written (NOT the group project). Take a screenshot of each and write a short statement on why you have chosen to use those algorithms. |  |
|  |  | This algorithm calculates the inventory value by looping through the inventory and adding together the price of each and returning the total value. I use the forEach method to loop through the inventory in this algorithm because it is more readable than a traditional for loop  https://i.gyazo.com/baeff6544e69931c557eaee8936084d3.png  I chose this algorithm to get the total value of collection by genre because the lowdash method filter seem like the most efficient way to filter records by the genre taken in by the function and then I use the low dash method sumBy because it then seemed the fastest way to get the total value of the records of that had just been filtered by genre. By using this method there was no need to use any of the more traditional loops less code needed to be written.  https://i.gyazo.com/c1e4256a9f4bb526ea485c25984dbf5c.png |  |
| P | P 17 | Produce a bug tracking report |  |
|  |  |  | This is the bug tracking report for the group periodic table project.  A screenshot of a cell phone  Description generated with very high confidence |  |