**CPIT Department of Computing**

**Graduate Diploma in Information and Communication Technologies**

**Bachelor of Information and Communication Technologies**

**Diploma in Information and Communications Technology**

**Diploma in Information Technology**

**BCSE101 – Software Engineering 1A**

**JavaScript Practical Test**

**Student Name:**

**CPIT ID Number:**

**NOTE: For the purposes of this test you may use textbooks, your notes and any electronic files that are in your area of the network.**

This test is worth 25% of the overall mark for BCSE101

This test has 4 pages including the cover sheet

***Note that for some questions it may be necessary to write extra methods over and above the method that is asked for.***

Copy the zip file contained the CarParkJS directory (and all sub-directories) from Moodle onto your local drive. Unzip all directories and files.

1. Four classes have been created in this project. Draw a class diagram in the space below showing the classes (including their attribute and methods) and relationships.

(4 marks)

1. In the setup method of the Controller class write code that creates the following three Zones using the addZone method that exists in the Park class

**Zone Location**

3 Cashel Mall

1 Central City

2 Madras Street

(3 marks)

1. Write a getZones method that displays only the .number and .location of all the Zones.

The required output is:

1. - Central City.

2. - Madras Street.

3. - Cashel Mall.

***NOTE: Punctuation and spacing and ORDER must also be as shown above.***

***Hints:***

***You WILL need to use \n and spaces in your methods.***

***You WILL need to call the .sortZones method in CarPark.***

(3 marks)

1. Write an addClient method for the Zone class that can be used to create a new Client. NB. You will need to add some code in the Client class as well.

(3 marks)

1. In the setup method of the Controller class write code creates the following Clients, using the addClient method that has been created previously.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Zone** | **ID** | **Full Name** | **Date of Birth** | **Permanent** |
| 1 | 6001  6002 | Maya Thorne  Carl Umaga | 31 Jan 1996  29 Aug 1996 | no  no |
| 2 | 7001  7002 | Jessica Bush  Marge Clinton | 31 March 1997  14 May 1997 | yes  yes |
| 3 | 8001 | Jillian Fleming | 14 Feb 1998 | no |
| 1 | 6003 | Anna Kumar | 31 March 1999 | no |

(3 marks)

1. Write a Boolean get method named isTemp for the Client class that returns true if the isPermanent status is false and false otherwise.

(2 marks)

1. Write a getTemps method that lists the full names of each Client who does not have a permanent park. This method must call methods created previously.

The required output is

Maya Thorne

Anna Kumar

Jillian Fleming

Stephen Tay

***NOTE: Punctuation and spacing must also be as shown above.***

***Hint: You might need to use \n and space in your method.***

(2 marks)

**HOW TO SUBMIT YOUR COMPLETED TEST**

When you have finished the test, zip and send ALL files to the digital drop box on Moodle.

You must check with one of the tutors that this has been done properly before you leave the room.

If your work has not been loaded into digital drop box while you are in the room your test will not be marked.

