**Ara 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:**

**Ara 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 has 4 pages including the cover sheet

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

Copy the zip file containing the test 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 attributes and methods) and relationships.

(4 marks)

1. In the setup method of the Controller class write code that to create the following four PandaSponsors using the addPandaSponsor method that exists in the Zoo class

**ID First Name Last Name Gender**

**01 June Gardiner F**

**03 Meryl Henry F**

**02 Maurice Cook M**

**04 William Cambell M** (3 marks)

1. Write a getPandaSponsors method for Zoo class that displays some of the details of the PandaSponsors.

The required output is:

01. June Gradiner

02. Meryl Henry

03. Maurice Cook

04. William Cambell

***Hints:***

* ***use \n in your methods.***
* ***call the .sortPandaSponsors method in Zoo.***

(3 marks)

1. Write an addPanda method for the PandaSponsor class that can be used to create a new Panda

NB. You will need to add some code in the Panda class as well.

(3 marks)

1. In the setup method of the Controller class write code to create the following Tracks, using the addPanda method that has been created previously.

***HINT: use the findPandaSponsor method in the Zoo class***

PandaSponsor ID PandaID Name Gender Age Location

01 100 Bai Yun F 4 San Diego Zoo

01 110 Bao Bao F 16 National Zoo China

02 450 Gu Gu M 10 Beijing Zoo

03 320 Po M 5 Zoo Atlanta

04 570 Da Mao F 20 Toronto Zoo

(3 marks)

1. Write a **Boolean** get method named hasTwoPandas for the PandaSponsor class that returns true if the number of pandas that a PandaSponsor has is two and false otherwise.

***HINT: Check the value returned by the length method of allMyPandas Array.***

(2 marks)

1. Write a getThoseWithTwoPandas method for the Zoo class that first lists the PandaSponsor details and then lists underneath the details of the Pandas as shown below. This method must call the method created in the previous question.

The required output is:

01. June Gardiner

100 Bai Yun (F) Panda from San Diego Zoo is 4 years old

110 Bao Bao (F) Panda from National Zoo China is 16 years old

(2 marks)

**HOW TO SUBMIT YOUR COMPLETED TEST**

* When you have finished the test put all the /src directory files in 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.