UNIVERSITY CENTRE FARNBOROUGH

ASSESSMENT FRONT SHEET 2015.16

PART 1: Description of assessment task – to be completed by tutor and shared with students via Moodle

PART 2: Declaration of Originality – to be completed and submitted with assessment by student

PART 3: Marks and feedback – to be completed by tutor (Note: LO ref no; Task and Assessment criteria in PART 3 MUST be completed before the front sheet is shared with students)

PART 1: Description of the assessment task

Faculty: HBS

Title of programme: BSc Computing

Level: 5

Module:10

Type of assessment: Assignment

Title of assessment: Internet and Platform Independent Programming

Date set: 10/11/2015	**Submission date:** 12/01/2016	**Feedback date:** 10/02/2016

Lecturer(s): Ogunduyile O.Oluwagbenga

IV confirmation of Front Sheet:

Learning Outcome(s) being assessed:

Mapping of learning outcomes to assessments is completed during the validation process – tutors should refer to their Programme Manager or the Academic Registry for the authoritative version of this documentation.

LO2	Produce an effective platform independent solution to a business problem by building a class in an appropriate language such as Java.
LO3	Produce an effective platform independent graphical interface linking with a class in an appropriate language such as Java.

TASK 1

Description

Step 1

In task 1, you are required to create a MyDate Java class under an appropriate name containing appropriate data and methods. The class should be useful to others as a building block for their own systems, and should demonstrate the ability to create classes demonstrating the principle of abstraction (predicting and catering for potential future needs). The state/behaviour that you incorporate into your class should be whatever you decide would be useful for future use, but should include **at least** the following:

```
data (variables):
            day, month, year
method:
            public boolean validDate(int day, int month, int year)
```

makes sure the month is between 1 and 12, and that the day is valid for the month and the year

```
            public MyDate(int day, int month, int year)
```

a constructor using three parameters.

```
public String toString()
```

a method to allow text conversion of the date in a standard European format

```
public Boolean leapYear(int year)
```

a method to determine if a given year is a leap year.

NB: a leap year occurs every four years, unless the year is divisible by 100, in which case it is not a leap year unless the year is also divisible by 400.

```
public int daysDiff(int d1, int m1, int y1, int d2, int m2, int y2)
```

a method for determining the difference (in days) between two dates.

```
public String dayName(int day, int month, int year)
```

a method to return the day name (e.g. Sunday, Monday, etc.).
NB the day number can be determined using Zeller's congruence via the formula:

d= ([2.6*M - 0.2] + D + Y + [Y/4] + [C/4] -2*C) modulo 7

where:

d is the day of the week (0=Sunday, 1=Monday etc)
D is the day of the month
M is the month number (March = 1, April =2, .., December =10, and January and February are months 1 and 2 of the following year)
C is the two most significant digits of the year (i.e. for 2004, C is 20)
Y is the two least significant digits of the year.
[X] is the next whole number down from the true value of X.

NB For top marks you should demonstrate effective use of overloading in appropriate methods – including the Constructors.

Step 2:

You should fully document the class you produce in the standard method of documenting Java classes. You may use the documentation facilities within Eclipse.

Step 3:

All programs produced must be documented and commented in a way that helps future users exploit the capabilities of your class. You should discuss each method you incorporate into the class, explaining how it might be used. All extra and overloaded methods you produce should be commented to explain how those methods would be useful. You should explain in comments in the code where you have used both overloading and overriding. Comments used within the java code should be of a type (i.e. Java, C++ or C comments) that is appropriate to the individual comment.

Step 4:

The programs should be comprehensively tested, with all tests being documented.

TASK 2

Description

Produce a graphical application that can demonstrate the facilities of the class produced in task 1.

1. Convert the Java class created in Task 1 into a Java Applet.
2. Create a suitable webpage and embed the Java Applet. Higher marks will be given for demonstrating higher programming skills through imaginative use, or development of, the applet and/or webpage.
3. Describe and document any changes made to the Java code.
4. Test the applet and webpage within at least two different web browsers.

Within reason, it should be possible to recover from hardware failure without loss of data.

The electronic copy will be used as a reference to the starting point of the assignment. When the assignment is submitted, it will be compared with its starting state and only the new functionality will be assessed. If any alterations exist, they must be demonstrably documented

Weighting **50%**

Student name / Enrolment number: *Student to enter details here*

PART 2: Declaration of Originality

To comply with the College's assignment submission protocol students should -

- Submit an Assignment Front Sheet to a Turnitin Assignment Drop Box with the assessment – this will be date stamped and available for academic misconduct scrutiny
- Post Assignment Front Sheet plus the assessment to assignment box in School offices **- having signed this section**

This declaration should be completed and submitted with your assignment/examination script. If it is not completed and signed, you will not receive a mark or feedback for the assessment

- ☐ I confirm that the submitted work is my own work and that I have clearly identified and fully acknowledged all material that is entitled to be attributed to others (whether published or unpublished) using the referencing system set out in the programme handbook.
- ☐ I agree that the College may submit my work to means of checking this, such as the plagiarism detection service Turnitin® UK.
- ☐ I confirm that I understand that assessed work that has been shown to have been plagiarised will be penalised. I have read and understood the College's guidance on academic integrity and plagiarism - http://intranet.farn-ct.ac.uk/learning-resources/integrity_plagiarism

- ☐ In completing this work I have been assisted with its presentation by

_____

[state name and contact details of assistant]

and, if requested, I agree to submit the draft material that was completed solely by me prior to its presentational improvement.

Delete this section by crossing it through if it is not relevant

- ☐ I have included my name and enrolment number in the footer of my submission

Word count	*Student to complete this section*	*Please refer to College intranet for acceptable limits*
Turnitin Similarity Index	*Student to complete this section*	*Please refer to College intranet for guidance*
Comment on Turnitin Similarity Index (where appropriate)	*Student to complete this section*	*Please refer to College intranet for guidance*
Student name / Enrolment number:	**Student signature:**	**Date:**

PART 3: Marks and feedback

Tutors will refer to UoS Grade Descriptors when marking assignments – tutors and students can find these descriptors in the HE handbook on the College intranet

College intranet → Higher Education Handbook → Teaching and learning → Grade descriptors

Tutors may append a copy of the descriptors to this document if required

Find UoS 'quick start guide' on assessment and feedback (including worked examples) College intranet → Higher Education Handbook → Teaching and learning → Assessment criteria and feedback principles

Learning outcomes met? / Grading

LO no	LO met?	Assessment criteria *Criteria should be contextualised, refer explicitly to learning outcomes, reflect UoS grade descriptors and map to assessment tasks listed in brief*	Max Mark	Mark Awarded	Explanation of mark awarded *For further comments, please refer to annotations on the work submitted*
LO2	Y/N	Produce an effective platform independent solution to a business problem by building a class in an appropriate language such as Java.	50		
LO3	Y/N	Produce an effective platform independent graphical interface linking with a class in an appropriate language such as Java.	50		
Total			100		

How you may strengthen future work

How student might change their approach; strengthen their understanding by further reading; develop a skill by further practice; employ additional procedures or techniques; engage with other students/academics/professionals.

General comments

Including wider comments about presentation; the wider application of the work covered and how it might be developed in later modules or in professional practice.

Assessor name: Gbenga Ogunduyile	**Assessor signature:**	**Date:**
IV (Second marker) name:	**IV (Second marker) signature:**	**Date:**

Student name / Enrolment number: *Student to enter details here*