Mobile Apps Development

Lab 2

This lab is marked and worth 10% of your overall grade.

Objectives

The purpose of this lab is to get used to creating apps with more than one page (activity). In this lab, a Body Mass Index app will be created to calculate a person's BMI based on their weight in Kg and their height in cm.

The App MUST have two pages.

You are free to design the 'look and feel' of the app however you want, as long as you implement the following brief…

Brief 1st Page – 30%

- The first page should have a heading section or title stating what it is for (e.g. BMI Calculator)
- The first page should ask for the user's weight in Kg (a whole number is sufficient) and a height in centimetres (again a whole number)
- It should reject numbers < 20 Kg and < 80cm, or greater than 200 Kg and 300 cm
- It should have a reset button and a calculate button.
- On pressing the calculate button, the user is brought to the second page.
- On pressing the reset button, the weight and height values are both set to zero.

Brief 2nd Page – 30%

- The BMI should be shown clearly on the second page to the user.
- The formula for BMI is weight in kilograms divided by height in meters squared. If height has been measured in centimetres, divide by 100 to convert this to meters.
- An example would be 75Kg and 170cm should give a BMI of 26
- There should be a finish or exit button on the page to exit this activity
- On pressing the finish button, the first page is shown again.
- *The calculator weight and heights should be reset to zero on display of the first page*. i.e. the old data should not be displayed.

Bonus Marks – 25%

To achieve your bonus marks for this lab, an visual indicator of your design and choice should be added to the second page as follows:

Use the information below to determine if the weight is underweight, normal or overweight.

If your BMI is:

- below 18.5 – you're in the underweight range
- between 18.5 and 24.9 – you're in the healthy weight range
- between 25 and 29.9 – you're in the overweight range

https://www.nhs.uk/live-well/healthy-weight/bmi-calculator/

Display this in some manner on the second page - an example idea is shown here
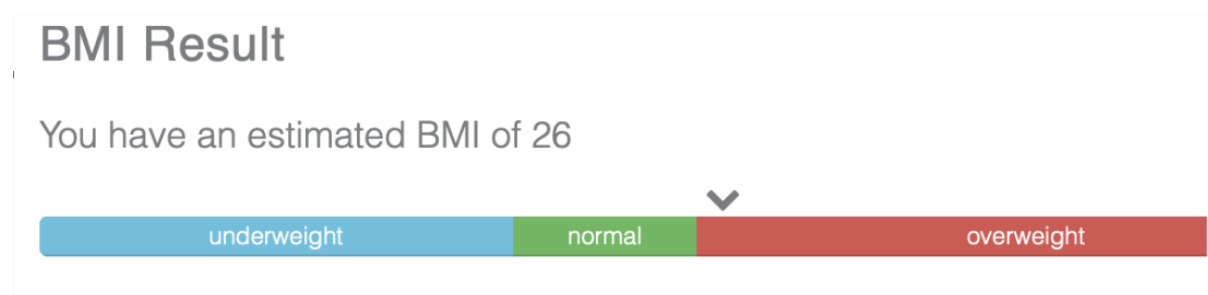
Conclusions – 15%

Write an honest, three part conclusion to your report.

State how far you got. e.g. Brief 1st Page and Brief 2nd page completed, Bonus Marks attempted.

State the issues you overcame in the assignment and the solutions found.

Where did you spent most of your time in this lab?

State what you would like to learn more about in app development after completing this project.

Deliverables

- A pdf report containing the title/name/date
  Screen shots of the main functionality of both first and second screens working
- You do not need to show the reset or exit button working in screenshots.
- Your java and xml code for both activities (on a white background)
- A reflective conclusion stating How far you got/achieved.
- Where you spent most of your time.
- What issues you overcame and solutions you found. Don't just state issues, say how you overcome them also.
- A reflective statement on the lab. e.g what to focus on based on this lab ? or what you would like to know more about ?

Marking Scheme

· 30% for Brief 1st Page completed
· 30% for Brief 2nd Page completed
· 25% for Bonus Marks
· 15% for quality and clarity of conclusions and work