



FACULTY OF SCIENCE

ACADEMY OF COMPUTER SCIENCE & SOFTWARE ENGINEERING

MODULE	IT18X37/IT00137 Mobile Programming
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CAMPUS	APK
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Special SSA FSAO	July 2020
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ASSESSORS

MR HJC VAN DER WESTHUIZEN

MODERATOR

PROF BL TAIT (UNISA)

DURATION      120 minutes

MARKS                      100

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PLEASE TAKE CAREFUL NOTE OF THE FOLLOWING:

1. Answer ALL questions.
2. This is an open book assessment.
3. Make sure to upload your assessment to the correct upload slot indicated in the instruction guide emailed to you before this assessment.
4. Expected submission format:
  - a. A PDF file with each question on a new page.
  - b. Pictures taken of handwritten work clearly indicating each question and the order.
5. Complete the Honesty Declaration found on Eve, as indicated in the instruction guide.
6. This question paper consists of 2 (including this cover page) pages.
7. This question paper consists of 2 questions sections.

**Question 1 – [10 Marks]**

You have been approached by a security company that have asked you to help them to redesign one of their internal mobile applications. The mobile application has fell victim to a number of malicious attacks over the past few months. For the first stage the company would like you to do discuss a strategy of how the security of the mobile application can be improved.

Using the knowledge that was presented during the course of the semester, discuss how you could potential prevent security risks. This discussion should include a discussion on the behaviour of malware and how to counter them.

**Question 2 – [90 Marks]**

A close friend has asked you if it is possible to design a new application for that would help school to teach students during the extended lock down schools are facing. She is very concerned that students, specifically highschool and primary school student are not being intellectually simulated during this difficult period. She has asked if you could come up with a mobile application that would allow students to learn and interact with academic materials that a teacher would upload for them. She also wants students to still be able to interact with one another and use the app as a communication platform as well as a teaching platform. You agreed and said that your would create a proposal document that would outline the application so that she would us it to convince a school to use the application. You have to make sure to include the principles used to design/plan the mobile application as well as the features your would add. Make sure to include the information needed to explain the application to a novice developer or parent that would need to understand the application in order to support its development for the students.

The proposal should be sure to include:

- [10] An introduction to outline the essay
- [20] A background section to provide basic information for non-technical people to be able to understand the essay and decisions being made.
- [50] A body that discusses all the considerations that should be taken as well as the recommendations. You have to make considerations based on the broad range of people that will have to use this application and how you intent to make is easy for them to use the application. ALL consideration must be clearly stated and motivated.
- [10] A conclusion to tie everything together.

**Total 100**