Midterm Exam

CMSC 436
Programming Handheld Systems
Fall 2022

October 20, 2022

Guidelines

Put your name on each page before starting the exam. This is necessary for your protection. If you fail to do this, your exam will not be graded.

Write your answers directly on the exam sheets, using the back of the page as necessary. If you finish with more than 15 minutes left in the class, then bring your exam to the front when you are finished and leave the class as quietly as possible. Otherwise, please stay in your seat until the end. If you violate this policy, your exam will not be graded.

If you have a question, you raise may your hand and we will come to you. Note that we will not answer general questions as that is not fair to the other students taking the exam. If you feel an exam question assumes something that is not written, write it down on your exam sheet. Barring some unforeseen errors, however, you shouldn't need to do this at all, so be careful when making assumptions.

Write your name legibly here.

NAME:

1. (1 pt.) Name one programming language in which a substantial portion of Android applications are written?

   Answer:

   Java or Kotlin.

2. (2 pt.) Briefly describe one benefit and drawback of using the Android emulator in your app development processes.

   Answer:

   Pros: one of Doesn't require an actual phone, Hardware is reconfigurable Changes are non-destructive Cons: one of Slower than an actual device, Some features unavailable, Performance / user experience can be misleading

3. (3 pts.) Assume you have an application that is running an Activity called Activity1. At some time t, Activity1 starts another Activity called Activity2. Name one Activity lifecycle method that will be called on Activity1 after time t, but before the user ends interaction with Activity2.

   Answer:

   Activity.onPause() or Activity.onStop()

4. (3 pts.) Briefly describe one main use of the Category, "android.intent.category.DEFAULT"?

   Answer:

   To receive implicit intents an Activity should specify an IntentFilter with this category

5. (3 pts.) In the latest versions of Android, what is the best Activity lifecycle method in which to put code that saves application information that must be reused across application sessions? What is your technical reason for choosing this method as your answer?

   Answer:

   onStop() - Methods called later in the lifecycle are not guaranteed to be called before an app quits.