

Final Exam - Module B

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|------------------------------|------------------|---------------------|
| Due May 11 at 11:59pm | Points 18 | Questions 18 |
| Time Limit 30 Minutes | | |

Instructions

See the home page for the topics that the final exam will cover. This module has 18 question and you have 30 minutes to complete them.

Attempt History

| | Attempt | Time | Score |
|--------|------------------|------------|--------------|
| LATEST | <u>Attempt 1</u> | 23 minutes | 18 out of 18 |

Score for this quiz: **18** out of 18
Submitted May 2 at 6:57pm
This attempt took 23 minutes.

Correct!

Question 1

1 / 1 pts

Which of the following is NOT a kind of view

☒ Activity

☐ Button

☐ CheckBox

☐ LinearLayout

Question 2

1 / 1 pts

As a rule, only your application can read and write to files that it stores in private storage in the device's filesystem.

Correct!

☒ True

☐ False

Question 3

1 / 1 pts

Every Android application **must** have this file with this exact name:

☐ activity_main.xml

☒ AndroidManifest.xml

☐ Application.apk

☐ MainActivity.java

Correct!

Question 4

1 / 1 pts

The proximity sensor in your phone uses

☒ infrared: it emits a certain amount of IR light and sees how much comes back

☐ microwave radar: use doppler effect - the return echo from a moving object will be frequency shifted

Correct!



passive infrared (no emitter): it detects some normal state and then detects a change when something moves in front of it



ultrasonic sound waves - emits a sound and listens for echo to determine range

Question 5**1 / 1 pts**

Android Studio can automatically convert Java code to Kotlin code.

Correct!

True



False

Question 6**1 / 1 pts**

Which of the following is NOT something provided by a data class?



a copy method



an auto-generated toString method



auto-generated equals and hashCode methods



automatic conversion to and from JSON

Correct!

Question 7**1 / 1 pts**

Which of the following lifecycle methods belongs to a fragment but not an activity?

Correct!☐ onCreate☒ onCreateView☐ onPause☐ onStop**Question 8****1 / 1 pts**

What custom classes should you create for a RecyclerView?

Correct!☐ a custom RecyclerView and a ViewHolder☐ an Adapter and a custom RecyclerView☒ an Adapter and a ViewHolder☐ you only need to write a custom RecyclerView**Question 9****1 / 1 pts**

In the Room component library, what does a @DAO class contain?

☐ methods for constructing the database

Correct!

- ☒ methods used for accessing the database
- ☐ methods used to convert to and from Kotlin and SQL
- ☐ the database holder

Question 10**1 / 1 pts**

Which of the following is NOT true about LiveData?

- ☐ LiveData objects are aware of lifecycle status changes
- ☐ LiveData objects hold data
- ☐ LiveData objects notify their observers when data has changed
- ☒ LiveData observers are typically declared in the Repository

Correct!**Question 11****1 / 1 pts**

Consider the following code from CriminalIntent.

```
var crimeLiveData: LiveData<Crime?> =  
    Transformations.switchMap(crimeIdLiveData) { crimeId ->  
        crimeRepository.getCrime(crimeId)  
    }
```

When does `crimeLiveData` get updated?

- ☐ when `crimeIdLiveData` is assigned to
- ☒ when `crimeIdLiveData.value` is assigned to

Correct!

- ☐ when `crimeLiveData.value` is assigned to
- ☐ when `getCrime` is called

Question 12**1 / 1 pts**

Consider the following code from the CriminalIntent application.

```
interface Callbacks {  
    fun onCrimeSelected(crimeId: UUID)  
}
```

Which class declares this interface?

- ☐ CrimeActivity
- ☐ CrimeFragment
- ☒ CrimeListFragment
- ☐ crimeRepository

Correct!**Question 13****1 / 1 pts**

In the BNR PhotoGallery application, where is the Flickr API key stored?

- ☐ AndroidManifest.xml
- ☒ FlickrApi
- ☐ FlickrFetchr
- ☐ strings.xml

Correct!

Question 14**1 / 1 pts**

In the PhotoGallery application from BNR, the fetchPhotos method in FlickrFetchr returns an object of type LiveData<List<GalleryItem>>. In our final Gallery application (after we cache the gallery item data), what does fetchPhotos return?



It has no return type. It updates the gallery items in the responseLiveData field, whose type is LiveData<List<GalleryItem>>



It has no return type. It updates the gallery items in the responseLiveData field, whose type is MutableLiveData<List<GalleryItem>>



It returns an object of type MutableLiveData<List<GalleryItem>>



It still returns an object of type LiveData<List<GalleryItem>>

Correct!**Question 15****1 / 1 pts**

In the Gallery application, the @WorkerThread annotation for the fetchPhoto function indicates that it should only be called on a background thread (not the UI thread).



True



False

Correct!

Question 16**1 / 1 pts**

ThumbnailDownloader is a generic class. In the completed Gallery application, two kinds of thumbnail downloaders are created - one in the PhotoGalleryFragment and one in the PhotoMapFragment. Which type arguments are used in each case?

☐ Both PhotoGalleryFragment and PhotoMapFragment use PhotoHolder

☐ Both PhotoGalleryFragment and PhotoMapFragment use Target

☒ PhotoGalleryFragment uses PhotoHolder, and PhotoMapFragment uses Marker

☐ PhotoGalleryFragment uses ViewHolder, and PhotoMapFragment uses Target

Correct!**Question 17****1 / 1 pts**

Which of the following is NOT a kind resource you need to modify or create when you are implementing bottom navigation (as we did in the Gallery app)?

☐ a layout resource (for the activity)

☐ a menu resource

☐ a navigation resource

☒ a transition resource

Correct!

Question 18**1 / 1 pts**

In the Gallery application, what layout *manager* is used by the recycler view?

☐ constraint layout☐ frame layout☒ grid layout☐ linear layout**Correct!****Quiz Score: 18 out of 18**