



Assignments > Week 6: Minions 2

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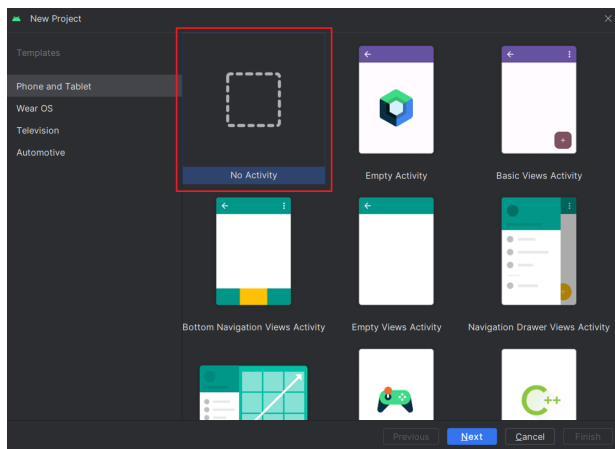
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Instructions

Lab 5 - 10 points

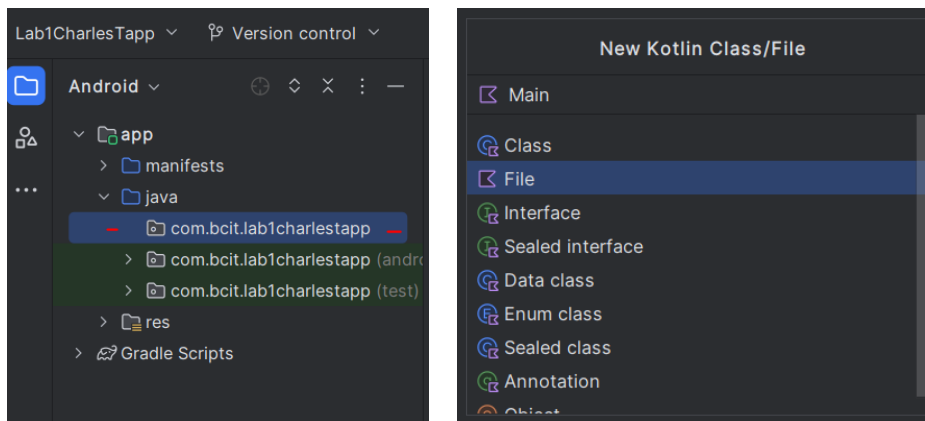
Setup - 2 points

1.) Create a new project with *No Activity*



2.) Name it 'Lab5YourName' (replace 'YourName' with your real name)

3.) On your package directory *right click* -> *New* -> *Kotlin class/file* and create a new file called *Main*



4.) Create a main function and run the program to create a configuration

Main.kt x

Submit

Cancel

```
4 println("Hello World")
5 }
6
7 |
```

5.) At the top of the file comment in your name and student number

```
Main.kt x
1 package com.bcit.lab1charlestapp
2
3 /*
4  Charles Tapp
5  A01254389
6  */
7
8 fun main() {
9     println("Hello World")
10 }
11
```

Program - 8 points

Your Minions game is doing well, but we need to prepare for patch 1.1:

- New minion: Orc
- Can bring items on missions
 - compass, map, or necklace
- Elf minion changes
- Repeat functionality tweaks

(please continue off of Lab4, you can copy the files into a new project or use the same project)

See uml designs for update changes in red

Figure 1

```
"C:\Program Files\Android\Android Studio\jbr\bin\java
Repeating a hunt 3 times...

ARRGH!
An Orc started a new hunt!
...
...
...
An Orc has returned from a hunt, and found a fox!
ARRGH!
```

Figure 2

```

"C:\Program Files\Android\Android Studio\jbr\bin\java.exe" ...
A minion cannot repeat a hunt more then 3 times! Repeating a hunt 3 times...

My arrows never miss!
An Elf started a new hunt!
...
...
...
An Elf has returned from a hunt, and found a orc!

```

Figure 1 & 2 are examples of possible outputs the game might have

- The text in the red box is displayed setting the repeatNum property

Race data updates

- Orc:
 - race: "Orc"
 - catchphrase: "ARRGH!"
 - baseHealth: same as Elf
 - baseSpeed: same as Elf
 - backpackSize: same as Elf

Calculating reward changes

- The time it takes to perform mission:
 - Gather: (backpack size + base speed + **item time modifier**) * random number between 0-4 inclusive
 - Hunt: (base health + base speed + **item time modifier**) * random number between 0-4 inclusive
- Items
 - Compass
 - time modifier: 1
 - Map
 - time modifier: 2
 - Necklace
 - time modifier: 3
- Rewards
 - Gather based off time
 - between 10..21 = bronze
 - between 22..33 = silver
 - between 34..44 = gold
 - **between 45..60 = diamond**
 - outside these ranges = nothing
 - Hunt based off time
 - between 11..20 = mouse
 - between 21..30 = fox
 - between 31..40 = buffalo
 - **between 41..60 = dinosaur**
 - outside these ranges = nothing
 - Hunt based off time as an Elf
 - between 11..20 = fish
 - between 21..30 = forest bear
 - between 31..40 = orc

- between 41..60 = troll
- outside these ranges = nothing

The Orc class should delegate the *baseHealth*, *baseSpeed* and *backpackSize* to an Elf class using interface delegation

If an Elf is performing a Hunt, the *reward* function should return the Elf's *huntReward*

See slides on Enum on how to implement one in Kotlin (specifically on how to use the constructor)

The *Item* property in the Mission class should have a default value of *null*

The *Integer* you pass into *repeat* should be set to *repeatNum*

repeatNum should be initialized using a delegate, you cannot repeat a mission more than 3 times.

When finished show your lab instructor in person to be graded immediately or submit your **project as a zipped** file here to be graded later.

Due on Oct 13, 2023 11:59 PM

Available on Oct 9, 2023 7:30 AM. Access restricted before availability starts.

Submit Assignment

Files to submit *

(0) file(s) to submit

After uploading, you must click Submit to complete the submission.

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