Batch #12 / Android Class

Remote Learning Assignment - Week 1

Answer **Q1**, **Q2** and **Q3** in any text file. Upload the project includes **Q4**, **Q5**, **Q6** and the text file (**Q1**, **Q2** and **Q3**) to your GitHub and **send a direct message to us that you have completed.**

1. Try the statements below in REPL. Please answer that there are correct or not and explain the reasons.
   a. `val id = 9527`
   b. `var number : Int = 5.6`
   c. `var title = "Hello Kotlin!"`
   d. `val content : String = null`
   e. `val number : Double? = 556.6`
   f. `var list: List<String>? = listOf(null, null)`
   g. `var list: List<String?>? = listOf("Wayne", "Chen")`
   h. `list.size`
   i. `list?.size`

2. Read the code below, choose the correct answer and explain the reason.

```
var message = "Hello and welcome to AppWorks School :)"
when (message.length) {
   0 -> println("Aye!")
   in 1..39 -> println("Your grace.")
   in 40..56 -> println("My lord.")
   else -> println("You know nothing...")
}
```

What will the code print?

   a. `"Hello and welcome to AppWorks School :)"`
   b. `"Aye!"`
   c. `"Your grace."`
   d. `"My lord."`
   e. `"You know nothing..."`

3. Read the code below, choose the correct answer and explain the reason.

```
val array = // Question
val units = arrayOf("byte", "KB", "MB", "GB",
   "TB", "PB")
for ((i, value) in array.withIndex()) {
   println("1 ${units[i]} = ${value.toLong()} bytes\n")
}
```

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Output:

```
1 byte = 1 bytes
1 KB = 1000 bytes
1 MB = 1000000 bytes
1 GB = 1000000000 bytes
1 TB = 1000000000000 bytes
1 PB = 1000000000000000 bytes
```

Which answer is the correct way to initialize the array to output.

a. `val array = new Array(6)`
b. `val array = {100}`
c. `val array = Array(6) { 1000.0.pow(10) }`
d. `val array = Array(6) { 1000.0.pow(it) }`

4. Create a new class, `Human`, includes:
   a. Pass in a mandatory String argument for the `name`.
   b. Add a method, `attack()`, that print `"<the name passed in> use Fist Attack!"`.
   c. In the `main()` function, create an instance of `Human`, and call the `attack()` method to print.

5. Create a subclass of `Human`; name it `Mage`, includes:
   a. Pass in a mandatory String argument for the `name`, also for the constructor of `Human`.
   b. Override the `attack()` method to print `"<the name passed in> use Fireball!"`.
   c. In the `main()` function, create an instance of `Mage`, and call the `attack()` method to print.

6. Now you have to add a flag to confirm the `Human` has mana or not, try to implement and print it in the `main()` function.