



# **Integrated Software Project : Exam Rehearsal**

Karim Lekadir, PhD

*Universitat de Barcelona*  
*Dpt. Matemàtiques & Informàtica*



# Question 1



Which of these lifecycles of software development is incorrect?

- A. Product analysis, requirements, design, coding, testing.
- B. Mock-ups, use-cases, design, coding, testing.
- C. Requirements, design, coding, functional testing, usability testing.
- D. Requirements, design, coding, functional testing.



## Question 2



Of these requirements, which ones are most important?

- A. User requirements.
- B. Legal requirements.
- C. System requirements.
- D. They are equally important in a proper software development process.



## Question 3



Among these steps, what comes first in the requirement gathering process?

- A. First draft of the requirements.
- B. First draft of the mock-ups.
- C. User identification for requirement gathering.
- D. Discussion with experts.



## Question 4



Use cases are graphical models that are used to represent:

- A. Detailed requirements of the app.
- B. High-level view of the app's components.
- C. A summary of the main users.
- D. A summary of the main user interfaces.



## Question 5



For a software app that aims to track the location of Covid-19 patients, which users should be interviewed for the requirement analysis?

- A. Citizens as they are the end-users.
- B. Medical doctors.
- C. Covid-19 specialists.
- D. Citizens and lawyers (to address data privacy).



## Question 6



Which language should you use for requirement documentation?

- A. English to make sure all customers understand
- B. Simple language that can be understood by all
- C. Technical language of the application domain
- D. Unambiguous, detailed and specific descriptions



## Question 7



How much time should requirement gathering last?

- A. 3 to 6 months
- B. Till the beginning of the system design
- C. Until testing is complete successfully
- D. Until requirement documentation is finalised





## Question 8



What are design patterns?

- A. Templates for object classes
- B. Templates for architecture design
- C. Common solutions to solve software design problems
- D. Common solutions to transform requirements into software design



## Question 9



In the Model-View-Viewmodel pattern, the View contains:

- A. An instance of the Model
- B. An instance of the Viewmodel
- C. An instance of the Model and Viewmodel
- D. An instance of the Viewmodel and Observer



## Question 10



The Model can contain:

- A. Android objects
- B. An instance of the Viewmodel for communication
- C. Only Java code
- D. An instance of the View to show any updates on the interfaces



# Question 11



The Viewmodel can contain:

- A. An instance of the View for updating the interfaces
- B. The MutableLiveData class for communication with the Model
- C. Only Java code
- D. The Observer class



## Question 12



Manifest.XML in Android are used to specify:

- A. The main objects and classes.
- B. The main files in the project.
- C. The main properties and components of the App.
- D. The main layout of the App.



## Question 13



The function `intent.putExtra()` is used to:

- A. Add another intent
- B. Add information/data to the intent to be transferred.
- C. To retrieve data from an intent
- D. None of the other



## Question 14



Which component is not necessary for a new Android Project:

- A. Build/: Contains build output
- B. Manifest: Contains the xml file
- C. Res/: Contains non-code resources such as bitmap images, UI strings and more
- D. Fragments: Contains code resources for Fragments



## Question 15



Which of this sentence is False:

- A. The Recycler View Adapter tells the Recycler view what to display in each ViewHolder.
- B. Dependencies should be declared in the Manifest.
- C. Material is a library for easily design visualization elements.
- D. setContentView is a function that shows the layout.





## Question 16



Which of these app Life cycles are true:

- A. The app is killed usually from OnStop().
- B. OnDestroy() is the last step when shutting down the app
- C. onPause() puts the current app running in the background while other app is in the foreground.
- D. All of them are true.



## Question 17



When is it best to perform software testing?

- A. After coding is finished
- B. During and after coding
- C. Before coding
- D. After software design



## Question 18



What is integration testing?

- A. Testing multiple devices.
- B. Testing multiple users.
- C. Testing all components of the code together.
- D. Testing using multiple datasets.



## Question 19



What is functional testing?

- A. Testing specific functions in the code
- B. Testing the functions of the different users
- C. Testing the function of the devices
- D. Testing the functions of the software



## Question 20



When is it best to plan software testing?

- A. After coding is finished
- B. During coding
- C. After requirement gathering
- D. Before requirement gathering



# Question 1



Which of these lifecycles of software development is incorrect?

- A. Product analysis, requirements, design, coding, testing.
- B. Mock-ups, use-cases, design, coding, testing.**
- C. Requirements, design, coding, functional testing, usability testing.
- D. Requirements, design, coding, functional testing.



## Question 2



Of these requirements, which ones are most important?

- A. User requirements.
- B. Legal requirements.
- C. System requirements.
- D. They are equally important in a proper software development process.



## Question 3



Among these steps, what comes first in the requirement gathering process?

- A. First draft of the requirements.
- B. First draft of the mock-ups.
- C. User identification for requirement gathering.
- D. Discussion with experts.





## Question 4



Use cases are graphical models that are used to represent:

- A. Detailed requirements of the app.
- B. High-level view of the app's components.
- C. A summary of the main users.
- D. A summary of the main user interfaces.



## Question 5



For a software app that aims to track the location of Covid-19 patients, which users should be interviewed for the requirement analysis?

- A. Citizens as they are the end-users.
- B. Medical doctors.
- C. Covid-19 specialists.
- D. Citizens and lawyers (to address data privacy).



## Question 6



Which language should you use for requirement documentation?

- A. English to make sure all customers understand
- B. Simple language that can be understood by all
- C. Technical language of the application domain
- D. Unambiguous, detailed and specific descriptions



## Question 7



How much time should requirement gathering last?

- A. 3 to 6 months
- B. Till the beginning of the system design
- C. Until testing is complete successfully
- D. Until requirement documentation is finalised



## Question 8



What are design patterns?

- A. Templates for object classes
- B. Templates for architecture design
- C. Common solutions to solve software design problems
- D. Common solutions to transform requirements into software design



## Question 9



In the Model-View-Viewmodel pattern, the View contains:

- A. An instance of the Model
- B. An instance of the Viewmodel
- C. An instance of the Model and Viewmodel
- D. An instance of the Viewmodel and Observer



## Question 10



The Model can contain:

- A. Android objects
- B. An instance of the Viewmodel for communication
- C. Only Java code
- D. An instance of the View to show any updates on the interfaces



# Question 11



The Viewmodel can contain:

- A. An instance of the View for updating the interfaces
- B. The MutableLiveData class for communication with the Model**
- C. Only Java code
- D. The Observer class





## Question 12



Manifest.XML in Android are used to specify:

- A. The main objects and classes.
- B. The main files in the project.
- C. The main properties and components of the App.
- D. The main layout of the App.



## Question 13



The function `intent.putExtra()` is used to:

- A. Add another intent
- B. Add information/data to the intent to be transferred.
- C. To retrieve data from an intent
- D. None of the other



## Question 14



Which component is not necessary for a new Android Project:

- A. Build/: Contains build output
- B. Manifest: Contains the xml file
- C. Res/: Contains non-code resources such as bitmap images, UI strings and more
- D. **Fragments: Contains code resources for Fragments**



## Question 15



Which of this sentence is False:

- A. The RecyclerView Adapter tells the RecyclerView what to display in each ViewHolder.
- B. Dependencies should be declared in the Manifest.
- C. Material is a library for easily design visualization elements.
- D. setContentView is a function that shows the layout.



## Question 16



Which of these app Life cycles are true:

- A. The app is killed usually from OnStop().
- B. OnDestroy() is the last step when shutting down the app
- C. onPause() puts the current app running in the background while other app is in the foreground.
- D. **All of them are true.**



## Question 17



When is it best to perform software testing?

- A. After coding is finished
- B. During and after coding
- C. Before coding
- D. After software design



## Question 18



What is integration testing?

- A. Testing multiple devices.
- B. Testing multiple users.
- C. Testing all components of the code together.
- D. Testing using multiple datasets.



## Question 19



What is functional testing?

- A. Testing specific functions in the code
- B. Testing the functions of the different users
- C. Testing the function of the devices
- D. **Testing the functions of the software**





## Question 20



When is it best to plan software testing?

- A. After coding is finished
- B. During coding
- C. **After requirement gathering**
- D. Before requirement gathering