Started on	Wednesday, 12 February 2025, 9:55 AM
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Grade	Not yet graded

Question 1

Complete

Marked out of 2.00

1.What is state Management, and mention some benefits of state management

State management is how data is stored, updated, and shared across an app, ensuring the UI updates correctly when data changes.

Benefits

- Efficient UI updates – Avoids unnecessary rebuilds.
- Better performance – Keeps the app fast and smooth.
- Easier code maintenance – Separates logic from UI.
- Simplifies data sharing – Passes data between widgets/screens easily.

Question **2**

Complete

Marked out of 2.00

Define Cross platform Compartibility

Cross-platform compatibility refers to an application's ability to run on multiple operating systems (e.g., Android, iOS, Windows, macOS) without requiring separate codebases for each platform. examples Flutter (Dart),React Native (JavaScript)

Question **3**

Complete

Marked out of 2.00

Why should usability be considered in mobile app development

Usability ensures that a mobile app is easy to navigate, efficient, and user-friendly. It focuses on simplicity, accessibility, and intuitive design, allowing users to complete tasks with minimal effort. Poor usability can lead to frustration, decreased engagement, and app abandonment.

Question 4

Complete

Marked out of 2.00

what four key things will you considered during the UI design of a mobile app

Screen Size & Device Orientation – The UI should adjust to different screen sizes and work well in both portrait and landscape modes.

Touch-Based Interaction & Accessibility – Buttons should be easy to tap, and the app should support accessibility features like screen readers and high contrast.

Consistency & Visual Hierarchy – Use the same fonts, colors, and styles throughout, and highlight important elements to guide users.

Simplicity & Minimalism – Keep the design clean, avoid clutter, and focus on essential features for a smooth user experience.

Question **5**

Complete

Marked out of 2.00

Why would you choose flutter for mobile app development

Flutter is a great choice for mobile app development because it allows you to use a single codebase for both Android and iOS. It offers fast development with hot reload, high performance with native compilation, and a beautiful UI with customizable widgets. Backed by Google, it has strong community support and plenty of resources.

Question 6

Complete

Marked out of 2.00

what is the function of the Null-Coalescing operator in Dart

The **Null-Coalescing Operator (??)** in Dart is used to provide a default value when a variable is null. If the left-hand value is null , it returns the right-hand value instead.

example

```
int? value;
print(value ?? 10); // Output: 10
```

Question 7

Complete

Marked out of 2.00

Using the myMTN app as a case study, identify and distinguish between stateless and stateful widgets in the App

Stateless Widgets are immutable, meaning they do not change once they are built. They are used for UI elements that remain the same, such as text, icons, and static layouts.

Stateful Widgets can change over time based on user interaction or data updates. They maintain state and can rebuild when the state changes, making them ideal for dynamic content like forms, counters, or real-time updates.

Stateless Widgets in myMTN App:

-
- **Login Screen UI** – The structure and layout remain the same.
- **Navigation Bar** – The icons for Home, Offers, and Account are fixed.
- **Plan & Bundle Details** – Displays fixed details unless refreshed manually.

Stateful Widgets in myMTN App:

- **Balance Display** – Updates when a user checks their new balance.
- **Data Usage Tracker** – Changes as data consumption updates in real-time.
- **Recharge & Payment Forms** – Reacts to user input and displays payment progress

Question **8**

Complete

Marked out of 2.00

Explain string interpolation

String interpolation allows you to insert variables or expressions inside a string using the $ symbol. This makes it easier to combine text and dynamic values without using concatenation (+).

example

String name = "John";

print("Hello, $name!"); // Output: Hello, John!

Question 9

Complete

Marked out of 2.00

Explain three(3) key methods in the lifecycle of a widget

initState() – Called once when a StatefulWidget is created. Used to initialize variables, fetch data, or set up event listeners.

build() – Called whenever the widget needs to be drawn. It returns the UI and updates when setState() is called.

dispose() – Called when the widget is removed from the widget tree. Used to clean up resources like controllers and listeners.

Question **10**

Complete

Marked out of 2.00

What is the significance of testing in the lifecycle of a mobile app

Testing ensures that a mobile app functions correctly, is user-friendly, and performs well before release. It helps detect and fix bugs, improves security, enhances user experience, and ensures compatibility across different devices and OS versions. Proper testing reduces crashes, builds user trust, and increases app success.

◄ QUIZ 2 - SECTION A

Jump to...

Data retention summary