

REPUBLIC OF CAMEROON REPUBLIQUE DE CAMEROUN

PEACE - WORK - FATHERLAND PAIX - TRAVAUX - PATRIX

**INTERNET PROGRAMMING AND MOBILE PROGRAMMING TO-DO**

**PROJECT TEAM**

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Based on our findings, we came out with the following response to the questions in the exercise.

1. **What are the Major types of mobile applications that exist?**

There are three types of mobile applications namely ; Native apps, Web apps and Hybrid apps.

* **Native Apps:**

These are apps built for specific platforms such as IOS, android and are written in platform-specific languages like Swift, Java.

**ADVANTAGES**

* High performance and speed
* Access to device features such as camera, microphone etc
* Better user experience
* Can work offline

**DISADVANTAGES**

* Higher development cost
* Longer development time
* Need to be developed separately for each platform
* **Web Apps:**

These are apps that are accessed through the web browser and do not need to be downloaded from an app store.

**ADVANTAGES**

* No need to download or install
* Cross platform compatibility
* Easier maintenance and updates

**DISADVANTAGES**

* Slower performance compared to native apps
* Limited access to device features
* Dependent on internet connection
* **Hybrid Apps:**

These apps are a combination of both Native and Web apps and can be downloaded from app stores like Native apps but built using web technologies like HTML, CSS and Javascript.

**ADVANTAGES**

* Cross-platform compatibility
* Access to device features
* Faster development time compared to native apps

**DISADVANTAGES**

* Slower performance compared to native apps
* Higher development time compared to web apps

We can compare these types of mobile applications based on several factors;

* Performance
* User experience
* Development time
* Development cost
* Access to device features
* Cross-platform compatibility
* Offline functionality
* Internet connection dependency

1. **Review of programming languages used for mobile programming.**

There are several programming languages used for mobile programming. Some of the most popular ones are:

* **Java:** The official programming language for Android app development. It is used to develop Native apps.
* **Swift:** A programming language developed by Apple for IOS app development. It is a fast and efficient language that is used to develop Native IOS apps.
* **Javascript:** Used for mobile development with the help of its frameworks like React Native and Ionic.
* **Objective-C:** A programming language developed by Apple that was used before Swift for IOS app development
* **Kotlin:** A modern programming language developed by Jetbrains that is used for Android app development. It is interoperable with java and can be used alongside it.
* **HTML5:** Used for mobile programming using frameworks like PhoneGap and Cordova.

1. **Review of a Mobile application Framework.**

**Mobile application development framework** is a software framework that is designed to support mobile app development . It provides a fundamental structure to support the development of applications for a specific environment.

Frameworks can be in three categories; **Native frameworks**  for platform-specific development, **Mobile web frameworks** for **web-based mobile applications and Hybrid apps frameworks**  that combine both native and web app frameworks.

1. **How do you collect and analyze requirements for mobile applications to be developed?**

Collecting and analyzing requirements for mobile app development is a crucial step in the development process. The requirements gathering process can be broken down into these steps ;

* **Identify stakeholders**

Here we identify all stakeholders who will be involved in the project. This includes end-users, business owners , developers, designers and other stakeholders who have a vested interest in the project.

* **Define Scope**

We define the scope by identifying what features and functionalities will be included in the app.

* **Gathering requirements**

We gather requirements by conducting interviews with stakeholders, creating surveys and analyzing existing data.

* **Analyze requirements**

We analyze the requirements by identifying common themes and patterns.

* **Prioritize requirements**

This is done based on their importance to the stakeholders.

1. **How to estimate the mobile app development cost.**

The cost of developing mobile applications depends on several factors.

The scope, functionalities, features and development timeline are the key factors driving the cost of development.. The broader these factors are the more costly developing your application will be. There are also other factors affecting the cost of development like type and size of the app, platforms and devices,design and most importantly type of hire.