Characteristics of Mobile Applications

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Usage Pattern

- Mobile devices are often operated using a single hand or by tapping a small screen with a stylus, it is important that users of the device be able to quickly discover and navigate to the information and features they want.

- The ability to quickly navigate to a small set of key features is an important aspect of a great mobile device experience

Long-Duration vs. Short-Duration Activities

✔ People using desktop computers tend to do so for long sessions.

✔ Working for an hour at a time is not unusual, and several-hour sessions are not a typical

Characteristics of Mobile Applications

Exploratory vs. Focused Activities

❑ Desktop and laptop computers offer a very rich platform for exploring information.

❑ The large-screen real estate available enables the display of a great deal of peripheral information that may be of interest to the user.

❑ Your mobile application should serve to behave as a kind of fish-eye lens for the users' needs, allowing a broad view but specifically zeroing on the most important tasks they want to accomplish

Characteristics of Mobile Applications

Form Factor

❑ The need to fit comfortably into one's pocket is a key defining characteristic of most mobile devices

❑ Some additional important form-factor considerations are as follows:

✔ The ability to be used in crowded and noisy spaces

✔ Single- or two-handed operation

✔ No power cords or communications cables for long periods of time

Reliability Requirements

❑ Mobile devices paradoxically resemble servers more than they do desktops. The reasons for this are as follows:

✔ Much like servers, mobile devices and their applications are often left running 24 hours a day, 7 days a week

✔ Much like servers, mobile device applications have to deal effectively with unexpected failures.

✔ Much like servers, mobile device operating systems and applications often do not use memory paging files.

✔ Many mobile devices serve other critical purposes while running foreground applications

Important Characteristics of Mobile Applications

❑ **Startup Time**

✔ Quick startup time is an important characteristic of mobile applications.

✔ Because users tend to use mobile devices frequently and for short durations, the ability to quickly start up a mobile application is imperative.

✔ It may be undesirable to sit at a desk staring at a word processor, encyclopedia, or development tool splash screen for 6 seconds as it starts up, but this is a minor annoyance compared to the overall time you will spend using the application

Important Characteristics of Mobile Applications

❑ **Responsiveness**

✔ A mobile device looks like a small mechanical tool that fits in your pocket, and people expect it to behave that way.

✔ When people tap it, push a button, or do anything physical to it, they expect a physical response.

✔ If they do not get an immediate response, they will become impatient and try again.

✔ This can cause problems when the second tap, click, or poke is processed by your application or another application that errantly gets the second click

<u>Important Characteristics of Mobile Applications</u>

❑ **Focused Purpose**

✔ Focused purpose is another characteristic of a successful mobile application.

✔ The application must have a clearly defined set of things it does very well; it must do them with a minimum number of clicks, taps, or other user gestures; and it must do them quickly.

✔ The importance to mobile devices of focused purpose is often exemplified by having special buttons on the devices that are assigned to specific tasks

Important Characteristics of Mobile Applications

❏ **Customized Interactions with Off-Device Information Sources**

✔ It is important to understand that building a great mobile application is not just a matter of getting the code that runs on the device right.

✔ Thought must also be given to the off-device software that the mobile application interacts with.

✔ Information sources that expose services to mobile devices should be given proper consideration in the application's design to ensure that they are returning information in a way that is appropriate for mobile devices

Important Characteristics of Mobile Applications

❑ **Consistency of Experience**

✔ Because mobile devices are compact and self-contained, users naturally view the whole device as a single unified experience.

✔ Typically, successful mobile applications do not appear so much as discrete applications but rather as natural feature extensions of the mobile device's experience.

THANK YOU