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Mobile computing & Applications

Syllabus

2 sessions • 1 Project • 1 quizz

Session 1: Introduction

Session 2: Application Development

MOBILE COMPUTING

The term “**mobile computing**” refers to a group of IT tools, services, and operational methods that allow users to access computing, data, and related resources and capabilities while on the go.

mobile computing allows users to transmit data from one device to another device without the use of any physical link or cables

In human-computer interaction, known as mobile computing, a computer is expected to be **carried around while being used, allowing for data, speech, and video transmission.**

MOBILE COMPUTING

Mobile hardware, mobile software, and mobile communication are all components of mobile computing.

Mobile computing technology is widely used today. It is used in a variety of specialized vertical sectors in addition to the commercial and consumer markets, as well as the industrial and entertainment industries.

Mobile computing is still a young subject of study, Its focus has changed from largely technical to usability, utility, and user experience.

WHAT IS A MOBILE COMPUTING DEVICE (MCD)?

Any device built employing mobile parts, such as mobile hardware and software, is referred to as a mobile computing device.

For example, mobile phones are telephones that can make long-distance calls using cellular networking or smart cards that are often used for payments, travel, and security area access but can run many applications that could be examples of MCDs.



MOBILE COMPUTING CHARACTERISTICS

Following are a few of the fundamental characteristics of mobile computing:

- User mobility (portability)**

The simplicity with can be moved between multiple environments or within a learning environment. The same service should be usable while the user moves from one physical place to another.

- Network mobility**

The same service should be accessible to users as they switch between networks.

- Bearer mobility**

The user should be able to switch between bearers while still receiving the same service.

MOBILE COMPUTING CHARACTERISTICS

- Device mobility**

The user should be able to switch between devices and continue using the same service.

- Session mobility**

It should be possible for a user session to switch between different user-agent environments.

- Service mobility**

The user should be able to switch between services.

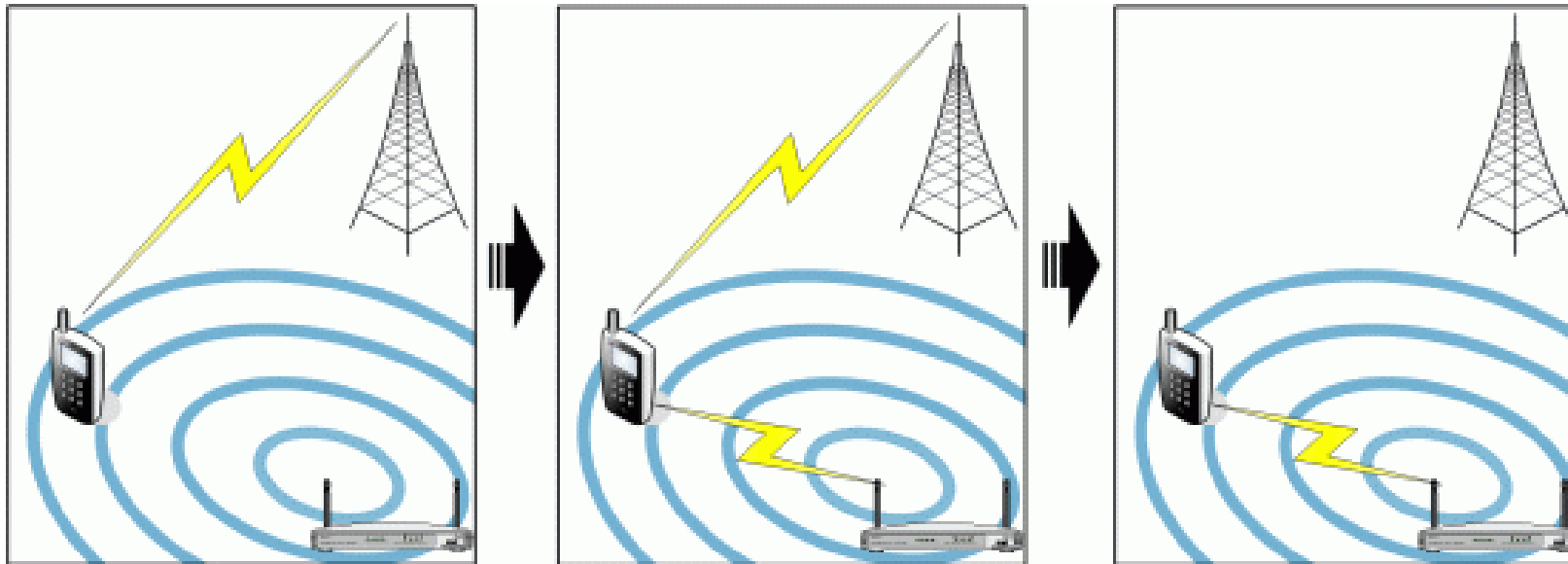
- Social interactivity**

The capacity for user collaboration and data sharing.

MOBILE COMPUTING CHARACTERISTICS



MOBILE COMPUTING CHARACTERISTICS



MOBILE COMPUTING CHARACTERISTICS




MOBILE COMPUTING TYPES

Infrastructure, hardware, and software technologies are all combined in mobile computing. The following are the types of mobile computing:

- Mobile infrastructure:** The technical components that allow devices to communicate are called infrastructure. The wireless networks, protocols, and data formats are all parts of the mobile infrastructure.
- Mobile hardware:** The mobile hardware consists of the user-interactive hardware and the actual mobile device. Cell phones, laptops, tablets, and wearable computers,
- Mobile software:** Mobile software includes user-facing programs like mobile browsers and e-commerce programs as well as mobile operating systems

A collection of various electronic components, including a large green printed circuit board (PCB) with multiple integrated circuits, several smaller PCBs, and various connectors and sensors, laid out on a white surface. The components are arranged in a grid-like fashion, showcasing a variety of electronic parts used in mobile devices.



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MOBILE COMPUTING EXAMPLES

- Smartphones and cell phones
- Laptops
- Tablets
- Bluetooth devices
- E-book readers
- Handheld game consoles
- Cameras

MOBILE COMPUTING EXAMPLES

WORLD'S FIRST LAPTOP 1981.



MOBILE COMPUTING EXAMPLES



MOBILE COMPUTING EXAMPLES



Mobile Software

- Mobile software is a program that runs on mobile hardware.
- This is the operating system for the appliance of mobile devices



MOBILE COMPUTING APPLICATIONS

- Mobile computing and its applications are a general term for a group of devices that can access wireless network infrastructure anytime from any location to access transmitted data like voice, video, and text.
- These devices also support mobile communication and include mobile hardware, software, and hardware.

WHAT LANGUAGE IS USED IN MOBILE COMPUTING?

The mobile industry has expanded significantly during the past ten years, while coding has developed into a real industry. Most businesses are now transferring their operations to mobile devices or creating business apps.

HTML5

SWIFT

JAVA

PYTHON

DART

ADVANTAGES OF MOBILE COMPUTING?

The following are mobile computing's main benefits:

- Increasing productivity
- Entertainment
- Portability (Location flexibility)
- Cloud computing
- Saves time
- Streamlining of business processes

DISADVANTAGES OF MOBILE COMPUTING?

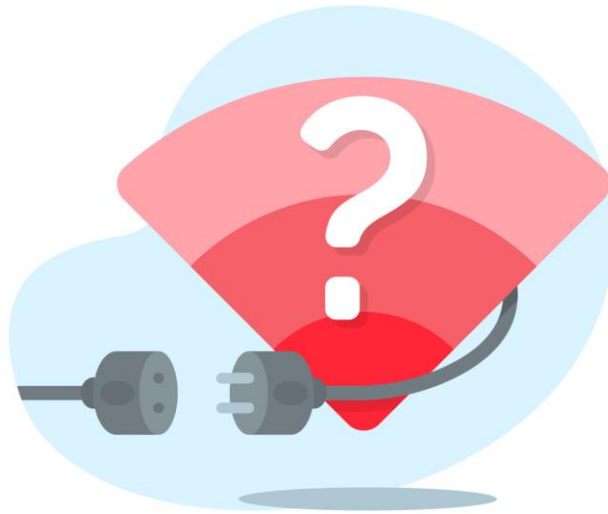
mobile computing has some issues and difficulties:

- Battery consumption
- Small screen sizes
- Inefficient bandwidth
- Network stability
- Protection
- Data management issues

DISADVANTAGES OF MOBILE COMPUTING?



DISADVANTAGES OF MOBILE COMPUTING?



Application Development Life Cycle



01

You've an App idea!

Brainstorming and
Requirement Analysis



02

Wireframing

We create wireframes to identify
problems before they arise



03

UI/UX Design

We refine the appearance
of elements till you're pleased

04



App Development

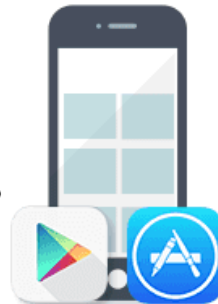
Our approach to
programming in
iterations improving
in each stage



07

Maintenance

We Offer Maintenance
support to our clients to
resolve technical issues.



06

App Store Launch

The new app is ready for
download

Beta
Release



05

Beta Release

For your review purpose.
we setup the app at staging
within a limited group