

lec 2

Not included  
Connection

Mobile Computing system → easily moved physically  
↓ using its Computing Capabilities while  
Calculators, laptop, Mobile moving

PDA → personal digital assistants

mobile Computing system → stationary Computing system

mobility includes moving between geographical locations  
applications → networks

Advantages → small size, power source, mobility

mobile Computing → mobile user + mobile devices  
mobile Network + mobile app

Dimension of Mobility → tools that allow us to quality  
our problem of building mobile  
SW application, mobile  
Computer system

are not  
completely  
orthogonal  
with respect  
to each  
other

Some are limitations

Mesh Connected

• Multimodal  
and variant  
UIs

- large variety of platforms
- limited power supply
- location awareness
- wireless Connectivity
- limited device Capabilities

• Active  
Behaviour

## Mobile or Stationary?

- ① Mobile Condition → users  
↳ set of properties that distinguish the mobile user from a typical, stationary computing system
- ② Dimension of mobility → app  
Set of properties that distinguish mobile system from stationary system

## \* Conditions of mobile user

- ① location awareness (Challenge, opportunity)  
↳ acquiring position info. require connectivity

a) localization → ability of mobile app to accommodate logic that allows the selection of diff business logic, work flow according to location info

b) location sensitivity → ability of sw app to obtain location info while being used and then to take advantage of this location offering features

Location awareness → wireless communication system

- triangulation
- proximity
- scene analysis



Quality of Service

QoS

"Communication Quality"

moving from one place to another → disconnect time from network

network Connectivity

affect QoS

QoS

includes

- Available bandwidth
- probability of Connectivity
- Statistical traffic measurement

imp to design mobile app

APP

how to stop working when disconnect, resume when connect  
must adapt their features and functionality to available bw

limited device Storage and CPU

Size / portability

Size / Performance

Small device physical → portability ↑ performance ↓

limited power supply

platforms → multi threading / multiprocessing

## User interface

Stationary application have more efficient UI than mobile  
- multi channel → touch, voice

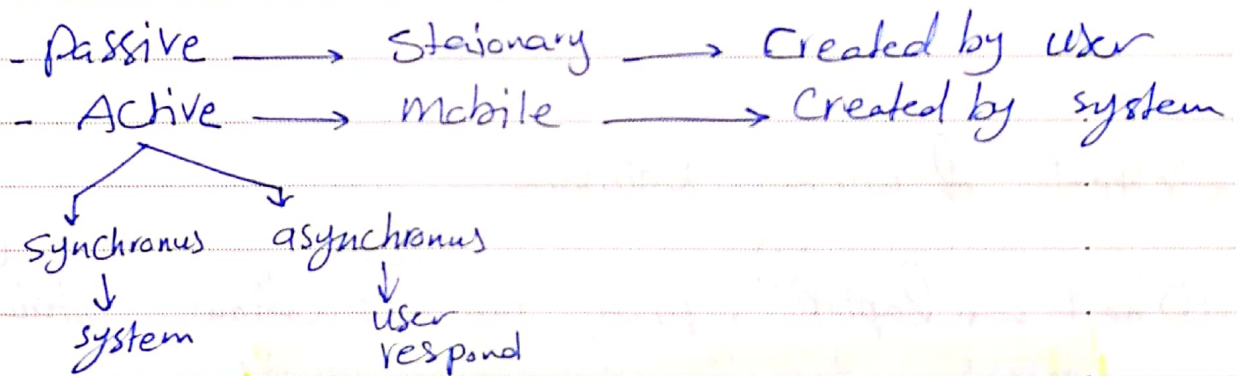
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## Platform proliferation

UML design → develop on different platforms

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## Transactions



## Architecture of Mobile Software app

