

# Use-cases and workflow

## Use-case diagram

Use Case Name:  
Withdraw Cash

Participating Actor  
Bank Customer (BC)

Goal:  
BC withdraws cash from their account

Preconditions:  
System prompting to insert bank card  
BC has bank card  
BC has money in their account

Postconditions:  
BC receives request amount in cash  
BC account reduced by withdrawn amount  
BC has bank card returned  
System prompts to insert bank card

Trigger:  
BC inserts bank card

Basic Flow:  
1. Sys prompts to enter PIN  
2. BC enters PIN  
3. System prompts for transaction type  
4. BC selects type  
5. System prompts for amount  
...

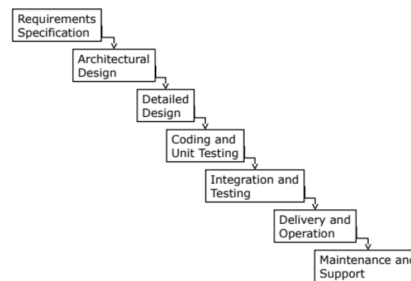
User

Primary - End user, frequent usage  
Secondary - Manager of end user, occasional use or by proxy  
Tertiary - Owner of the system, influences funding choices

User considerations

Background - Motivation to learn, Literacy, Knowledge,  
Computer skills, Attitude to computers  
Kinds of use - infrequent/novice, frequent/expert  
Abilities - Physical, Social, Perception, Motor  
User communication issues - Cannot always express what  
they want, may not know what is and isn't possible,  
stick to set cases and knowledge, fear other factors  
Innovator's dilemma

## Waterfall Lifecycle Model



## Throwaway Prototyping Incremental Prototyping

Process:  
build and test prototype  
gain knowledge for the real product  
"throw away" the prototype  
  
then "develop" the product for real

Process:  
triage system into separate "increments"  
• i.e., "must do", "should do", "could do"  
develop and add one increment at a time

Example (accounting system):  
prototype 1 — general ledger  
prototype 2 — accounts receivable/payable  
prototype 3 — payroll

## Evolutionary Prototyping

Process:  
feature is refined or "evolved" over time

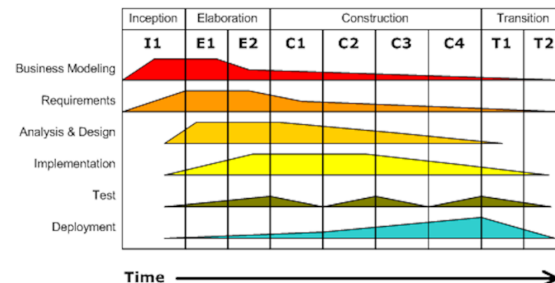
Example (text editor):  
prototype 1 — command key cut/paste  
prototype 2 — undoable cut/paste  
prototype 3 — drag and drop cut/paste

## Unified Process

- \* Iterative
- \* Incremental
- \* Customizable
- \* Phases
  - \* Inception: Risks and Business Cases and Use Cases
  - \* Elaboration: use case diagrams and class diagrams
  - \* Construction Phase: implementation in iterations
  - \* Transition: Deployment

### Iterative Development

Business value is delivered incrementally in time-boxed cross-discipline iterations.



## Staged Delivery

Developers:  
deliver the system in a series of working releases or builds

Users:  
use some functionality while the rest continues to be developed

Possible parallelism:  
production and development systems  
staggered development streams

## Staggered Builds

