# Projects

a quick guide

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## Your project

- It is your project
  - not your supervisor's
- Do what you enjoy, do it well
- Be clear what you're aiming for
  - both project deliverables, and standards

## Standards of projects

- See marking criteria for full details
- A pass demonstrates basic competence
- Higher grades are possible.....

## First class project

- Has to demonstrate mastery
- Needs a touch of something special

### Managing your supervisor

- Role is to guide and mentor
- Offer advice
  - not solutions
  - not programming help
- Use them!
  - ask questions
  - discuss ideas

### **Process**

- Weekly meetings with supervisor
- Weekly reports on Canvas
  - demonstrate progress
    - reassures supervisor
    - protects you from plagiarism claims
  - documents decisions
    - makes writing up easier

#### Process cont.

- Project proposal
  - end next week
- Demonstrates you know what problem you're tackling, how you might go about it, and when
- 60 credit: scientific article
  - towards end semester
  - a full literature review a structured summary of the state of the art
  - ethics and legal issues discussed too

## Main stages

- Problem identification
- design concepts
- prototypes
- feedback
- architecture design
- software development
- testing

- quick evaluation
- improvements
- user feedback
- experimental evaluation
- results
- conclusions
- references

#### **Ethics**

- All projects need to undergo ethical consideration
  - from you
  - from ethics committee
- automated quiz on Canvas
  - most will not need further review

## Plagarism

- Passing off others work as your own
- Not allowed
- Quoting is fine make it clear it's a quote, and put in the reference
- Using libraries is fine make it clear what is yours and what is provided
  - you will not get credit for what the library provides
  - if you write something that has a standard library, there better be a good reason

## Writing

• why write?

## Writing

- writing is thinking
- writing gives you documentation about why you did what you did useful in 6 months time!
- writing gives you evidence of progress
  - useful if you're down about your project
- writing gives you content for your final report
  - or at least, structure and concepts
- gets you in practice

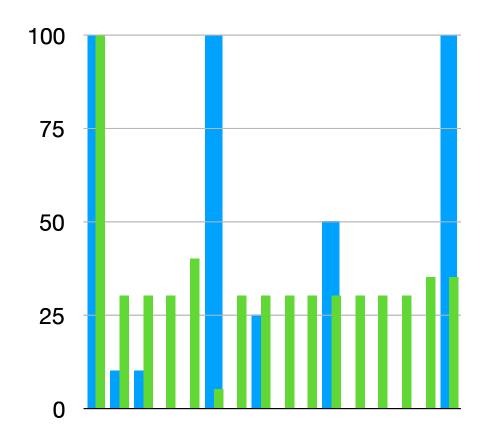
## Managing time

- total time on project calculations
  - 10 credits is 6-7 hours/week
  - project is 40/60 credits
  - so that's 14/21 hours per week: 2-3 days
  - project duration is ~25 weeks
  - 700/1050 hours total

## Managing time

• a lot

### Effort models



## Management

- Time management
  - odd hours
  - block time
  - track progress
  - social media

## Management

- Project plan
  - week by week plan of what you will do
  - you will not stick to it!
  - but it will identify where you are lagging/ahead
  - Gantt chart

## Management

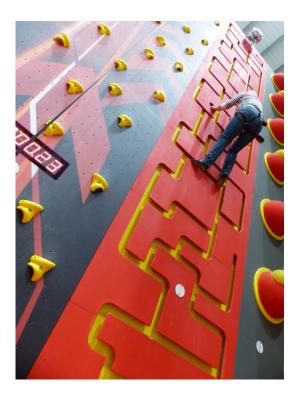
- Software engineering approaches
  - Waterfall?
  - Iterative?
  - Agile?
  - UCD?

## Management tools

- Lab book
- Canvas logs
- Post-Its
- Trello
- PivotalTracker
- etc.

## Health management

- Projects are big things and so can be stressful
- Manage your stress
  - manage your time to a plan
- physical health
  - sleep, eat, drink healthily
  - exercise
  - 20 mins work then short break longer break at 1 hour
    - or whatever suits you



## Health management

- manage mental health and attitudes
  - others are having problems with their work too!
  - some days you'll make good progress, others bad accept this
  - talk to friends
  - discuss with supervisor
  - school welfare officer
  - doctor

## Writing tools

- LaTeX/Word
- bibliographic management
  - Mendeley; Zotero; Word references; EndNote; REF
  - try a few, pick one early

#### Other tools

- Google Scholar scholar.google.com
- sensible use of Google
- Wikipedia but go to original sources
- shared docs
- cite-u-like and other social reference sharing tools

### Questions?