MSc Information Technology
Project Briefing

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General Things

- Focus of the project: Information System
- You are required:
  - a) conduct a piece of research related to the requirements and the design of an information system (Research)
  - b) implement a piece of software essential for the system (Implementation)
  - c) analyse the viability of the proposed solution (Analysis)
- Basic work required in all three components
- More extensive work required in one of them
Typical expectation from extensive work

- Research:
  - **Extensive**: a study of the state-of-art in an IT-related area using appropriate quantitative or qualitative methods for requirements gathering
  - **Basic**: review of information resources (literature, web), comparison of advantages/disadvantages of existing approaches

- Implementation:
  - **Extensive**: development of a substantial software system using software engineering methods
  - **Basic**: e.g., a simple website (no DB back-end)

- Analysis:
  - **Extensive**: appropriate qualitative or quantitative methods for validation and evaluation of the methods or tools resulting from the study
  - **Basic**: e.g., unit testing/usability testing of the implementation
You specialisation

- Management/administration in IT
  - Research project
- Software development
  - Implementation project
- Data science
  - Analysis project

Research project: Example

- Information system(s) in question: accessible websites
- Research part (50%):
  - Study of the resources on limiting factors (low vision, learning, disabilities, blindness, cognitive limitations, limited movement, speech disabilities, photosensitivity)
  - Study of the existing recommendations, e.g., Web Content Accessibility Guidelines
  - Comparative study of a selection of existing websites w.r.t. accessibility
    - Evaluation by a group of users filling in questionnaires
  - Conclusions on accessibility requirements (supported by research above)
- Implementation part (25%)
  - A website with limited functionality but compliant with all accessibility requirements
- Analysis part (25%)
  - Evaluation of the website by a group of users as above
Implementation project: Example

- Information system(s) in question: sport game tracking system
- Research part (25%)
  - Study of the available systems for sport game tracking, focusing on features (e.g., what can be tracked, goals, passes, etc.), functionality (website, mobile app,...), and availability (proprietary, open source,...)
- Implementation (50%)
  - Database backend
  - Web interface
  - Mobile app
- Analysis (25%)
  - Unit-testing of the code
  - User testing of the system

Analysis Project: Example

- Information system(s) in question: housing data querying
- Research (25%)
  - Study of available datasets on housing characteristics and prices (size, structure, availability)
  - Study of typical queries of interest (e.g., what is an average 2 bed flat price around an underground station)
- Implementation (25%)
  - User interface to specify typical queries
  - Scripts for data processing
- Analysis (50%)
  - A collection of relevant user queries
  - Demonstration of good scalability on data set
  - Demonstration that non-trivial insights into housing market can be provided, sufficiently large data needed for good results
Procedure

- Project proposal (April deadline)
  - Choose topic = Information system in question
  - Write the proposal
  - No need to define project type (Research, Implementation or Analysis)
- Project report (September deadline)
  - Define project type
  - Write the report

Assessment Points

Proposal:
- Background research
- Presentation of the problem, and aims and objectives of your work
- Plan for developing the solution
- Presentation of the proposal (structure, clarity, etc.)

Report:
- Identification of the information system, depth of research, and consistency of resulting specification
- Functionality and usability of implementation
- Analysis and evaluation of methods/systems resulting from the study
- Presentation of report, documentation
For students enrolled in 2018 or earlier

- It is possible to undertake a research dissertation
- No implementation required
- (No BCS accreditation for this type)

Dissertation:
- Select, justify and enact an appropriate research method
- Collect and analyse quantitative or qualitative data from real-world phenomena
- Argue a case for the validity of their findings

- Strongly recommended: Research Methods in Management (RMM1) module
- Report is longer than in the MSc IT project: 12,000 – 15,000 words