



Handbook

Introduction

The team project is an opportunity to develop an understanding of team working. As the computing discipline has developed and the complexity of our problems increased the nature of how we work has changed. It is now very rare that you will work as an individual, instead most activity is based around multi-disciplinary teams who work together to solve complex problems and delivery effective solutions.

Schedule

Delivery of each project will be split into 6 weekly 'sprints' that loosely follow the plan:

Week 1: Requirements, Specifications and Planning (Design)

Week 2: Initial implementation: setup of frameworks and structures

Week 3: Implementation: second stage development towards the project goal

Week 4: Implementation: third stage development towards the project goal

Week 5: Evaluation: Evidence gathering and analysis to demonstrate how the project has addressed the aim

Week 6: Project Presentations

To support the delivery of the team project there are a series of lectures and lab sessions:

Lectures

Week 1: Team project introduction and outline of team working

Week 2: Tools and techniques in team working

Week 3: Teamworking in Practice: Sam Attwood, Technical Lead Cyber Foundry and AI Foundry

Week 4: Evaluation

Week 5: Reporting

Note: In week 6 the lecture session will cover aspects of progression to next year and course directions.

Labs

Workshop sessions, facilitated by the tutor, to support the development of the projects. Each lab will have 3 parts.

Week 1:

- Activity a) Teams formation, getting to know each other, deciding team name and project
- Activity b) Identifying the Problem Domain and requirements
- Activity c) Detailed planning of activity for the week ahead

Week 2, 3, & 4:

- Activity a) Retrospective of the previous week's activity
- Activity b) Review of the emerging product
- Activity c) Detailed planning for the next weeks activity

Week 5:

- Activity a) Project Retrospective: What went well, what could be improved, what didn't work
- Activity b) Product retrospective and evaluation planning
- Activity c) Reporting and presentation planning

Week 6:

- Project Presentations

Types of projects

The project is of your choosing. As a group you should identify and specify the project you undertake. Over the course of the unit, as a group, you will manage the project and deliver a substantive piece of group work that is of benefit to the student/staff community. Projects may be of a wide variety of types (see project guide) but should be of a scale that reflects some 600-700 person hours (this equates to 20 hours per person per week).

Method of working

The lectures and lab session will guide you through the project and frame the way in which you deliver it. Lectures will give you concepts and understanding for approaches to managing the project, while Lab sessions support the review, reflection and planning processes common to team-based project activities. Between the lecture and lab sessions you should, as a team, undertake the activity to deliver the project. It is not necessary to undertake this all as a co-located team, but you should arrange ways of meeting and keeping in touch and coordinating activity (eg daily Microsoft Teams 'standup' meetings).

Teams

Each team will be defined for you, comprising 5 or 6 members of your tutor group. The rationale for having pre-defined teams is to help you develop professional interpersonal and communication skills, and confidence in working with others, particularly people you do not know. This is similar to the experiences you will have as you move into industry and post-graduate careers, where you are most likely to join an established team. Development of ability to work and communicate with others is a key employability skill.

Roles

Within the team you should, collectively, choose who will undertake a set of roles (below). There will be further opportunities during your course for you to undertake these roles if you wish. Each role holder brings a different perspective to the team. However, all team members, role holders or not, should contribute to the product being developed. Undertaking a role has responsibilities, both in terms of team activity and reporting, and with respect to the way in which you will reflect on the team activity experience in your final assessment.

It is important to remember that role holders need to lead rather than direct: what we often refer to as 'influencing without authority'. This means they must work, collectively, within the team to ensure each team member is given an equal voice, resolve any differences and ensure the project remains on track for delivery. They will also need to work with the tutors, both to report on team performance, and to communicate between the team and their management (the tutor).

The roles you will need to decide on as a group are:

Technical Lead: This person will be responsible for leading planning activity, design and technical processes. This role must ensure that the product has coherence and is technically viable. Within this role the technical lead will need to report on team engagement, conflicts and resolutions and technical progress each week, both as a submitted report and as a team leader meeting with the tutor. In the assessments they will need to report on team performance and their individual report will need to contain additional critical reflection on team leadership and their role as team leader.

Product Owner: This person is responsible for steering the product within the project. They will contribute to the team from a user perspective about the nature and features of the product. During review processes they will also need to consider, from a user perspective, how the product is progressing towards the user centric problem domain. They will report to the tutor on progress of the product and in assessments will need to report on the product viability. Their individual report will need to include additional critical reflection on the product and their role as product owner.

Quality Controller: This person will be responsible for ensuring the quality metrics implied by the requirements and specifications are delivered and the product is fit for purpose. They should be leading and steering the testing processes and will lead the evaluation process. In the group presentation they should report on the 'quality' of the product and how this was achieved within the team project. Their individual report will need to include additional critical reflection on the product's quality and their role as quality controller.

Assessment

The team project will be assessed by two deliverables:

1. Group Presentation (30%): In week 6 you will, as a group, deliver a group presentation on your project. This should:
 - a. Outline the problem domain and the requirements of the project
 - b. Review the 'technical' architecture and strategic approach to the development of the product
 - c. Present and critically review the product
 - d. Describe the team's method of working and approach to team-based delivery of the project
 - e. Present the evaluation of the project and critically review its effectiveness in addressing the project aim
2. Individual report (70%): Delivered in week 7. This will discuss and critically review:

- a. Your team's approach to teamwork, issues and challenges encountered and lessons learnt
- b. Your individual contribution to the team's deliver of the project and what you have learnt about team working
- c. Your 5-year plan and how the team working experience can contribute to your own personal development goals

Your team leader will be reporting, weekly, on team engagement to the tutor, this will be taken into consideration within the assessment process.

A presentation frame is provided to support the preparation of slides, and a writing frame is provided to guide you through the individual report.

Support

There are two mechanism for support you can access during this team project:

Lecturer: Prof Rob Aspin

Available for discussion, and contactable by email (and will arrange teams discussions if needed) for discussion and clarification on the unit deliver, assessment and process of team working

Lab Tutor: Various

Your lab session tutor is both the facilitator for the lab session workshops, and your team's line manager. Discussion concerning the project and process of teamworking can be discussed with them both in the lab sessions, and by email.