

# Team Software Project

COM 6103

## Lesson Outline

- About the Module
  - [Aims and objectives](#)
  - [The teaching team,](#)
  - [Structure of the module](#)
  - [Assessments](#)
- How the module fits in with your programme
- Your expectations from this module
- What we expect from you

## Quote



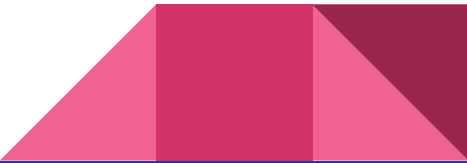
— Michael Jordan

 MOTIVATIONAL  
PICTURE QUOTES.COM

## About the module

# What

- a module that provides wider context for **more practical aspects of the taught modules** and **provides students with experience of working in teams** to develop a substantial piece of software.
- 15 credits
- Team based module
- 6 students per team
- 3 Teams per Project



# The module aims to give students the opportunity to:

- demonstrate their ability to work as a constructive and effective member of a team;
- demonstrate and improve their technical abilities in the areas relevant to the project;
- demonstrate and improve their professional skills, particularly those of time and work management, risk management, and interpersonal skills;
- demonstrate and hone their skills in dealing with real-world problems.



# Learning Objectives

By the end of the module, a student will be able to

- work constructively as a member of a team;
- research the background to a multi-faceted practical development problem;
- plan and manage the process of producing a solution to that problem;
- contribute effectively to that solution process;
- document the work that they have done, review it critically, and present it to others.



# Teaching Team



Dr Olakunle Olayinka (Ola)  
**University Teacher**



Andrew Stratton  
**Senior University Teacher**



Chen Zhixiang  
**Lecturer**

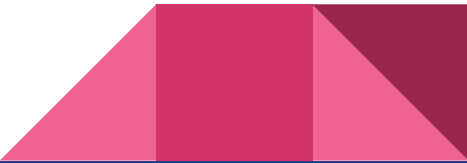
## Advisors

- Owen Millwood
- Temitope Adeosun
- Sara Grzelak



# About Me

- Olakunle Olayinka (Ola)
- University Teacher (Institute of Coding)
- PhD in Computing, MSc Computer Forensics & BSc Computer Science
- 7yrs teaching & lecturing at Universities
  - Teaching Cyber Forensics, Computer Security, Software Engineering & Information system modules
- 10 + years experience in IT & Security



# Module Structure

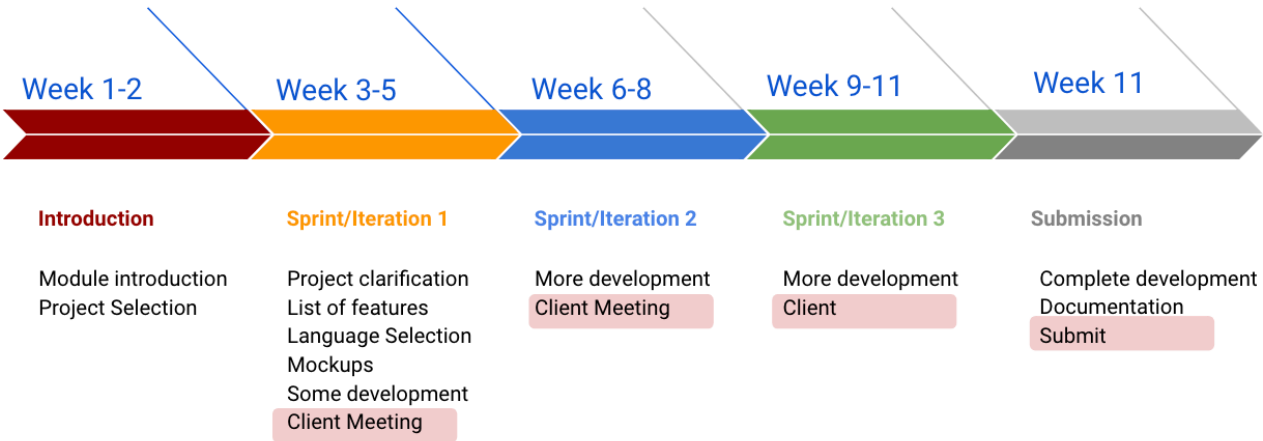


# How

## Not traditional

- Flipped Classroom
- Project based learning

# How – The structure



# Module plan

Week	Online Session	Pre-recorded Videos
1	•Introduction to the Module •Meet your team	•Introduction to Agile
2	•Agile Exercise •Develop questions for clients	•Teamworking •Requirements gathering
3	•Client Meeting •Guest Lecture -	•Prototyping
4-11	•Weekly Advisor meeting •Client meetings (in Week 5, 8 & 11)	

- Pre-recorded Videos to be released on Thursdays

# Assessments



- Teamwork (30%)
- Delivered software (30%)
- Documentation (40%)

- Peer Review
- Must use GIT

Hand-out - Wednesday, 9th Feb 2021

Hand-in - 15:00 on Thu, 12 May 2022

# How the module fits in with your programme

- Extends your knowledge of programming that has been taught in Object-oriented programming, Text-processing, Speech processing
- Applies some of the learnings from the professional issues module
- Prepares you for your dissertation project – Project management and Time management skills
- Helps you to work in teams
- A requirement for BCS accreditation

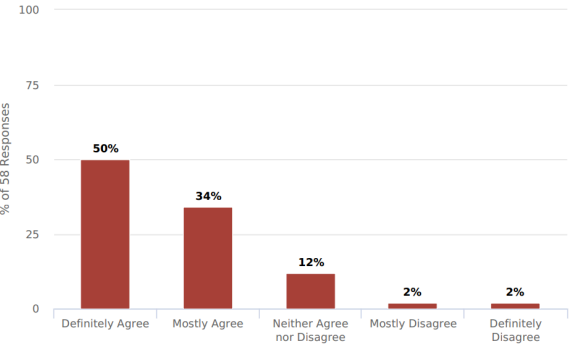
# Feedback from Previous years

# Feedback from last year

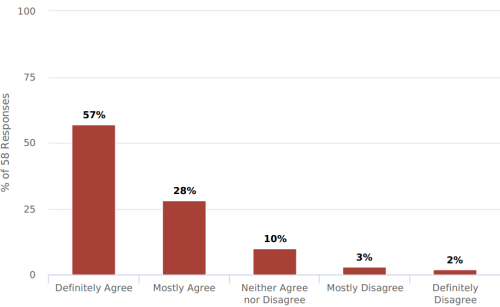
Question	Module Mean
It is clear how this module fits within my programme as a whole.	4.0
The teaching was effective in helping me learn.	4.0
The teaching staff were approachable.	4.2
During this module I have had opportunities to reflect on my progress.	4.0
Overall	4.0

# Feedback from 2019/2020

The teaching was effective in helping me learn.

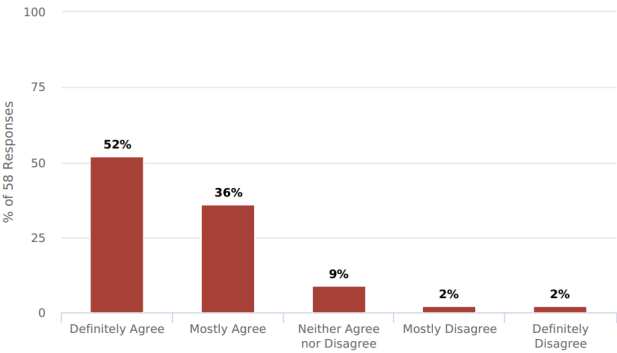


The tutor(s) were approachable and helpful

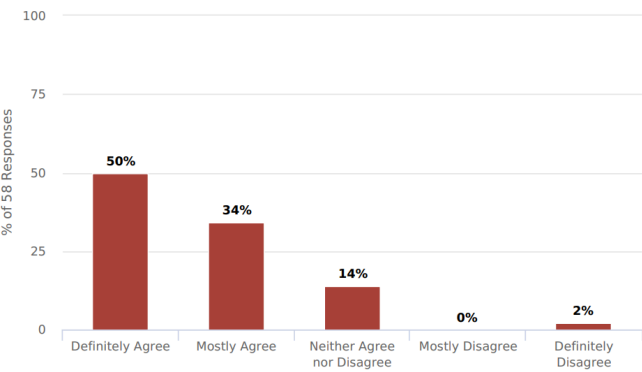


# Feedback from 2019/2020 (2)

I was able to use feedback provided during the module effectively

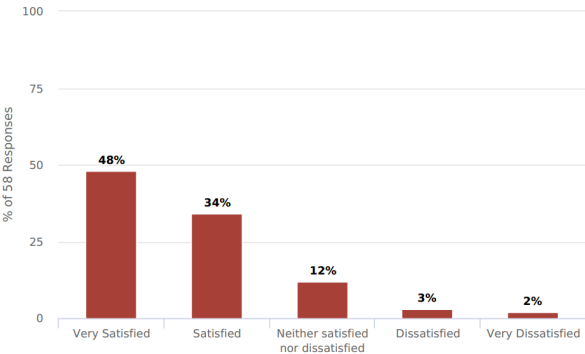


I understood how this module fitted within my programme as a whole

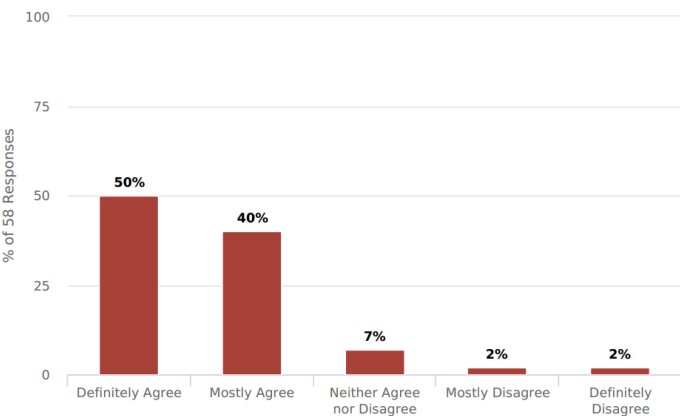


# Feedback from 2019/2020 (3)

Please rate your overall satisfaction with the module



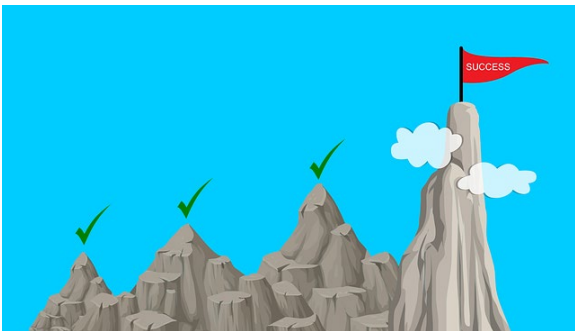
The assessment criteria have been clear



# Average Score

## 2020/2021

- Overall – 69
- 6 out of 11 teams had above 70

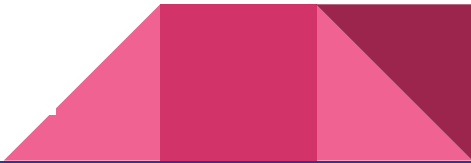


## 2019/2020

- Overall – 66
- 7 out of 18 teams had above 70



# Questions



Your expectations from this module



Join at  
**slido.com**  
**#COM6103**

Active poll

What are your expectations as you begin this module? 000

# What we expect from you

## As: module designers

- We want you to develop and demonstrate your
  - ability to work as an effective member of a team
  - Professional and ethical skills
  - ability to deal with real-world problems
- So that you can show employers:
  - you have reached accreditation standards for team working
  - you have confidence in handling real world challenges
  - you have important transferrable skills

## As a: team

- You will:
  - Research the background to a practical problem
  - Gather requirements and priorities from clients
  - Plan and manage the process of producing a solution
  - Document your work, review it critically, and present it
- So that team members can show that:
  - you can work effectively as a constructive member of a software development team.

## Workload

- How hard should you work?
  - 15 credits => a quarter of the working week (approx. 100-120 hours per person in the semester)
  - Most work will happen outside scheduled sessions
  - Keep things in perspective; respect work patterns
- Use your time effectively
  - Talk to each other often
  - Be honest about how things are going
  - Stay engaged, be proactive

## Project constraints

- You must use Git to track your work
  - We will provide information about this
- Your software needs to run on the platform specified by the client
- Grades will be awarded to teams
  - Peer review
  - We will use Git records, advisor forms and team comments to adjust marks for students who don't engage

## Project management

- Projects are to be run using an “Agile” methodology
- The team will be self-organising
  - Who will you decide who does what?
  - [You will](#)
- [Tools can help](#)
  - Trello, Asana, MS Projects?

## Working in teams

- Teamwork requires a mix of skills.
  - [Communication is vital](#)
    - Will you use any tools?
    - Which one(s)?
  - [Find out what skills your team has available](#)
    - use them to your collective advantage.
  - [There may be disagreements](#)
    - Plan ahead - how will you handle them?

## Preparing for weekly meetings with your advisor

- [Discuss with each other](#)
  - what you've achieved in the past week
  - what you intend doing over the next week
  - what roadblocks are in the way
- Listen to each other's ideas and opinions
- Is the plan effective [for the team?](#)
- Keep minutes of your meetings



## Basic rules for the weekly meetings

- Attendance at the weekly meeting is **compulsory**
- Meetings will be **short** – so be concise!
- **Attendance** will be monitored
- **Each of you** is expected to give an update of what you have achieved since the last meeting



## What do the advisors do?

- They are your first point of contact, and can help clarify issues, requirements or make enquiries with either the module leaders or the clients
- Meet you every Thursday
- Act as “**scrum masters**” and help ensure you develop your software following true agile processes
- Submit weekly reports of your formal meetings
- Report non-attendance to the module leader



## Basic weekly agenda

1. Team update since the last meeting
2. Individual update since the last meeting
3. Activities planned for the next week
4. Who is doing what?
5. Any questions / requirement clarification
6. Challenges/ Problems
7. Comments on learning
8. Show & Tell – Do you have anything to show the advisor?
9. Advice/ feedback



## End of session questions



# Next Steps

- Tomorrow
  - Teams to be released
  - Introduction to Agile Video would be released
  - Assignment brief
  - Project brief
  - Meet your team



# Team Software Project

COM 6103

## Lecture 2

### Outline

- Meet Lecturers & Advisors
- Short lecture
- Get introduced to the projects
- Meet your team

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# About Andrew Stratton

- Senior University Teacher (Institute of Coding). Department Industry Liaison Officer, Knowledge Exchange & Entrepreneurship co-Lead. Host and Organiser of the Sheffield Startup Summer.
- MSc Computer Science Exeter University, BSc Hons Computing
- 12+ years Industry experience including BT (British Telecom), IBM@Asda, IBM@Barclayard, BG (British Gas) Research and Development, over 20 contract roles from Java Developer to Technical Architect and (multiple) Project manager.
- 17+ years Lecturing in Software Engineering and Computer Science including Web Application Development, Architectures and Frameworks with many different technologies including NodeJS, Golang, Java, Ruby, JavaScript, MongoDB, CouchDB and more.

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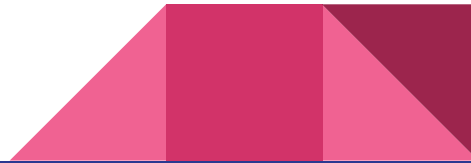
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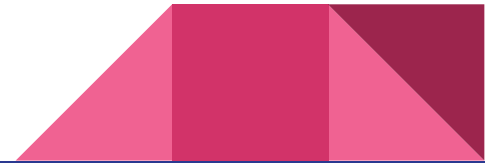
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## Project Brief

## Project 1 - eTourism

**Client – Andy Stratton**

- As people look to avoid the Carbon cost of air travel, alternatives to travelling abroad are needed.
- This project is similar to airbnb ‘experiences’ but with a (totally) mobile focus rather than the mostly desktop webcam/room focus for airbnb.
- The concept is that visitors (tourists) can join an eHost in their own country at an already agreed location ,typically at an event or a famous landmark, e.g. the summer solstice at Stonehenge, visiting Machu Pichu
- Integrate application with PayPal and/or Stripe (Sandbox only).

# Project 2 - Recycling eWaste (B2C)

Client – Zhixiang Chen/Andy Stratton

- Most people have eWaste - electronic waste - sitting in drawers at home, including old smartphones, laptops, tablets, consoles, televisions, etc.
- The project aims to offer a hub where devices can be identified according to age and demand with an option for owners to pay for data retrieval.
- The Hub will be a web application with web server/database with desktop being essential (optionally a mobile web browser interface as well).



# Project 3 - Solar Offset

Client – Andy Stratton

- In the UK solar power currently provides ~4% of electricity in the UK with upto 20% efficiency. However, many UK properties have little or no possibility of adding solar panels since they have no roofs or gardens to site panels in.
- This project proposes that households in the UK wishing to reduce the world's carbon footprint might do so by funding solar power in other countries, where the benefits include the seed capital infrastructure development, localised power generation (i.e. off grid), etc.
- A web application that allows households to fund solar panels/power in a country of their choice and then see the carbon saving that they are making compared to their own carbon footprint.



# Project 4 - FarmersMarket

Client – Zhixiang Chen/Ola Olayinka

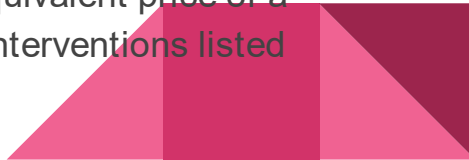
- 30% of food produced for human consumption is lost or wasted along the supply chain every year. In Africa, it is about 30-50%.
- A marketplace that allows rural farmers to list their produce and sell to urban and rural customers.
- Think amazon for fresh produce in Africa
- Income and revenue tracking per store owner
- Payment integration via Stripe and Paypal



# Project 5 - FoodforAll

Client – Ola Olayinka

- Hunger is considered the leading cause of death in the world.
- Globally, one in nine people are hungry or undernourished. In 2020, 2.37 billion people did not have access to enough safe and nutritious food.
- Make it easy for people to donate a meal to individuals who cannot afford one.
- A web application that allows users to donate the equivalent price of a meal in their local currency to projects/ community interventions listed by charities on the application.



# Project 6 - SpareFoodShare

**Client** – Ola Olayinka

- The UK throws away around 9.5 million tonnes of food waste in a single year – even though 8.4 million people in the UK are in food poverty.
- Are there times when you have had items in the fridge or cupboard that you could not use before its use by date but cannot find it easy to give someone else who might need it?
- This project aims to make sharing sparefood easy for various neighbourhoods in the UK.
- Users of the service would be able to list food items and their expiry dates while others would be able to indicate interest and collect the items in a safe location.



# Team Exercise

- Meet the members of your team
  - Find out about their background and software development skills
  - What experience do they have working in teams and developing software?
- Set out a team agreement
  - Define communication mechanisms
  - How decisions are made
  - When you would meet
  - Courtesies and expected behaviour
  - Target score



# Team Exercise (2)

- Discuss the projects
  - Which one is your team best suited for and why?
  - List your top-four preferences
  - we cannot guarantee that you will be allocated your first choice
  - you cannot choose who you work with



# What happens next – Locate your team

- You will work in teams
  - Choose a team name
  - Exchange contacts
  - to tell us which projects you'd prefer to work on – [Deadline Thursday 4pm](#)
  - We cannot guarantee that you will be allocated your first choice

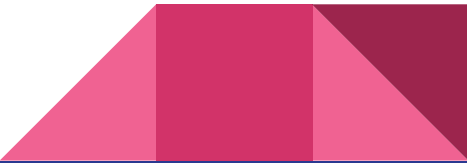
Team Project Preference Form - <https://forms.gle/icUUWXKboiK5G3oY9>





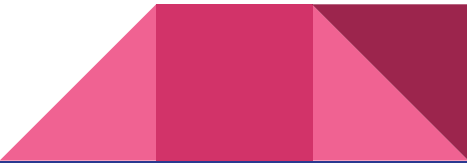
# Coming up

- Lecture on Agile released on Thursday
- Next week
  - to tell us which projects you'd prefer to work on – [Deadline Thursday 3pm](#)
  - Agile exercise
  - Team & project allocation
  - Lecture on teamwork released
  - Client & advisor meeting schedule
  - GitLab Access



# You are expected to find things out for yourself

- Read [Agile handbook](#)
- Read “*The Agile Edge: Managing Projects Effectively using Agile Scrum*” by Brian Vanderjack.
  - You can read it online for free via the library web pages
  - It is a short book. You can read it over the next 10 days.



# End of session questions

