

Coding Four: Collaborative App Development Studio

Assignment details

Aims / Context

Building applications across a range of screens requires adaptive, modern tools. In Application Development studio, you will design and build applications on the Apple platform using XCode and Swift. Students will use a set of modern tools to rapidly prototype application ideas. Applications require not just a knowledge of the Swift language, but also an understanding of design patterns such as the Model View Controller used to create flexible, event driven, dynamic designs. Xcode also includes tools such as Interface Builder, UI Kit, Segues, Storyboard and more to facilitate rapid implementation of design ideas across a range of displays. Tables, lists, view controllers, saving data and more are also critical elements to making an app usable. In addition, you will learn to implement AR experiences. Students will learn to use tools such as SceneKit to mock up simple 3D worlds, do image recognition and draw in augmented space. Finally, students will learn to use the web and json data within a mobile app.

Demonstrate a working understanding of the Swift language (Knowledge)	Through the design, development and realisation of the portfolio
Solve design problems in the context of application development (Knowledge)	Through the design, development and realisation of the portfolio
Develop confidence presenting ideas and implementing mobile solutions (Communication)	Through the design, development and realisation of the portfolio
Produce innovative and compelling AR experiences (Realisation)	Through the design, development and realisation of the portfolio
This assignment will be assessed against the following UAL marking criteria: Knowledge, Enquiry, Realisation	

Assessment requirements

Holistic – This unit is assessed holistically (100% of the unit). Assessment will be against the specified marking criteria.

Assignment information

Portfolio of work: documenting the outcomes for the set project work. This will also include a research weblog and/or sketchbook documenting iterative design and development process specifically in the areas of graphic design and information visualisation. **(100% Holistic)**

Further Assignment information

Unit Code: IU000115 **Unit Title:** Coding Four: Collaborative App Development Studio

This file contains **only further information** to your assignment.

Please refer to the brief which is uploaded in the heading of the unit for dates, hand-in, submission, marking criteria, support etc.

For any questions about the brief and further information please contact your tutor.

Assignment information

Portfolio of work: documenting the outcomes for the set project work. This will also include a research weblog and/or sketchbook documenting iterative design and development process specifically in the areas of graphic design and information visualisation. (**100% Holistic**)

Further Assignment information

Create an app that is aimed at a particular community, this can be an app that is used by said community or an app that's used to aid said community.

The app you create can be a chat app aimed at connecting people within the community, a list of services that can be used by people within the community, a social media app, or any other app that fits the community.

Start by answering the following questions:

1. What is a community?
2. What communities are you a part of?
3. Which community do you want to create an app for? Why?

You don't have to be part of the community that you create an app for, but you will need a good understanding of the community you are creating an app for regardless. You could also look at how charities operate, as charities are entities working for specific communities with shared aims. You could also envision an app which could be used by a charity for specific purposes.

Focus on researching the needs and habits of the community, identify an area that a mobile app could possibly improve the experience of a community member. Create prototypes that you will test out with members of the community that are not yourself. Research, design, prototype, iterate.

show understanding of swift, identify and solve design problems, present ideas & mobile solutions, discuss and demonstrate how you would execute compelling AR experiences

Coding Four: Collaborative App Development Studio

Context

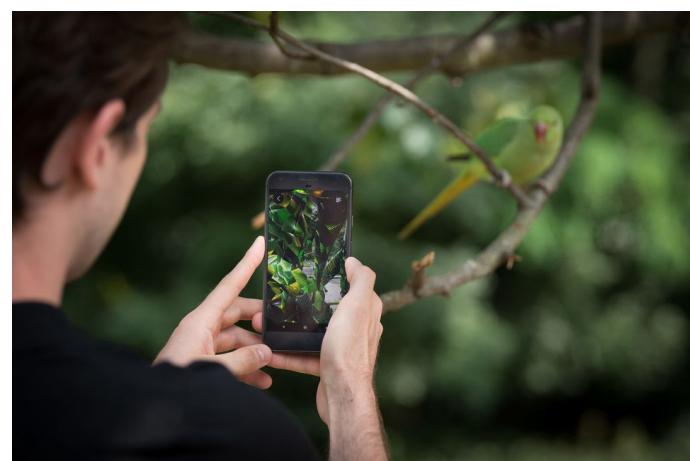
During the lengthy global pandemic, there has been a rise of people reclaiming their love for the outdoors and nature, probably influenced by the public being locked in for many months. Emerging statistics are showing that people are physically as well as conceptually attempting to connect more to nature and its surroundings, even in fashion there has been an up and coming 'Hiker core' trend that foresaw the increased sales of brands like Arc'teryx, Patagonia and The North Face. This comes as a surprise due to past studies showing that the UK is not 'a nation of nature lovers'.

'What does it take to get some people to go outside and experience nature? For some urban dwellers, it took the COVID-19 pandemic, researchers say.'

Ideation

An AR mobile application for nature lovers to discover and explore park features, through the use of AR they will be able to identify the wildlife, natural beauty, history & culture, plants and fungi placed around the park. This project will have a focus on national trust parks as they have a large database and extensive information on the nature that resides on their land.

Another feature can be a saved collection of all the animals, plants, etc discovered in the park and even make a simple game and a reward system from discovering the park's features.



Research (3 pages)

National Trust parks and their data

The screenshot shows the homepage of the New Forest National Park website. At the top, there's a dark header with the park's logo and navigation links for Blog, News, Jobs, About Us, Contact us, and Search. To the right are social media icons for Facebook, Instagram, Twitter, and YouTube. Below the header, a main title "Discover the Forest's wildlife" is centered above a subtitle: "The National Park is teeming with a huge range of birds, deer, dragonflies, reptiles and much more." A grid of images and labels follows, divided into three rows. The first row features "Bats", "Beetles", and "Butterflies". The second row features "Bearded tooth", "Brown birch bolete", and "Chicken of the woods" mushrooms. The third row features "Crimson waxcap", "Deathcap", and "Devil's fingers" fungi. The bottom section of the page continues the grid with "Brimstone", "Brown butterflies: meadow brown, gatekeeper & ringlet", and "Grayling" butterflies.

Discover the Forest's wildlife

The National Park is teeming with a huge range of birds, deer, dragonflies, reptiles and much more.

Bats	Beetles	Butterflies
Bearded tooth	Brown birch bolete	Chicken of the woods
Crimson waxcap	Deathcap	Devil's fingers
Brimstone	Brown butterflies: meadow brown, gatekeeper & ringlet	Grayling
Pearl-bordered & small		

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► Crimson waxcap

Crimson waxcap

The Crimson Waxcap (*Hygrocybe punicea*) can be found in pasture growing in small groups or rings.

Waxcaps include some of our most colourful species. To some people, they have even earned the title of 'orchids of the fungal kingdom'. The New Forest has large areas of unimproved grassland that has not been spread with any artificial fertiliser, and the sward is also closely grazed by the ponies and cattle, thus providing the ideal habitat for these pretty waxcaps.

They are small mushrooms (6 or 7cms high) growing in groups or solitary, with often several different species growing on the same patch of grassland. They come in a variety of colours - all shades of red, pink, orange, yellow, black, white, purple, shades of brown and even shades of green. However they are all different species of the same genus. The cap may be dry, greasy or viscid and some of them have a definite smell such as honey, leather, garlic or even burnt rubber, which all aids in identification.

All the fruiting bodies can be seen on the grasslands in the New Forest from late summer through to the autumn, and certainly before any night frosts bring an end to their appearance.

Fungi leaflet

 Fungi leaflet



The Scarlet Waxcap is probably the largest of the species and is fleshy with a greasy cap, the margin of which can be yellowish, and with a thick fibrillose (covered with tiny hairs) stem.

Why do we need this project?

- statistics show uk are not nature lovers
- get more young people involved in the community and make it family fun
- to make information more accessible
- bring the gap between nature and tech
- Bring the already existing nature lover community with rewards for their contribution to the parks

AR and image recognition projects + similarities

User and market research (2 page)

Who are my users and what are their needs?

personality types and analysis

Interviews

questionnaires

Design (2 pages)

- Storyboard / wireframes / design planning

- What design problems are being faced

Development (½ page)

prototype

talk about swift

talk about AR in depth and how it would be implemented

Results (½ page)

- limitations

