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Applied Computing 2nd Year – Cloud & Network

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# Product Vision:

## What is the product for?

We aim to centralise all the digital WIT services into one platform that is easily accessible.

## Who is the product for?

Our product is intended to cater for students and faculty alike. It is expected that this would make the WIT services more intuitive and cohesive.

## What is the product called?

Woodle is an all-in-one communications app specifically for WIT students to enhance and simplify their college experience.

## What does the product do?

Woodle supplies students and faculty alike with easy access to many college facilities including notes & assignments, communications, timetables, and zoom lectures/recordings.

The aim is to integrate the spread across platforms such as Teams, Moodle, Slack, Discord, etc. in order to eliminate the need for students to keep track of multiple forms of communication with their lecturers.

## How is our product different?

Our product aims to be different from competitors such as Slack, Teams, Discord, by integrating all communications into one app. Students’ contacts will be automatically updated in relation to their course, and will have the ability to message classmates and lecturers directly in the app. It will also have other features unlike other apps, such as automatic timetable generation using WITs own timetable system.

## What does our product offer?

Our product offers greater functionality and easier access to a wide range of college facilities.

# Initial Features List:

* Student communication, allowing students to communicate with each other on a one-to-one basis, as well as on a group basis.
* Faculty communication, allowing faculty to communicate with each other and with students, on a one-to-one and one-to-many basis.
* Access to material for each module (Either directly incorporate Moodle or replace it.)
* Access to course material on a per module basis. (There are two potential solutions, either directly incorporate Moodle, or outright replace it with a more modern system.)
* Timetable system, per group basis, as opposed to per course basis. Ability to request a change should enough people agree.
* Flexible timetable solution, allow lecturers to choose from available rooms and time slots. Also allow students to choose their individual stream to filter out other related streams in their course from their view. Include the ability for students to request a timetable change should it be inconvenient for the majority.
* Video conferencing solution that integrates the timetable, and automatically begins recording lectures in the designated room.
* Flexible payment gateway solution, allowing students to pay their fees through multiple payment platforms directly through the app.

# Personas

## What is a Persona?

A user persona is a fictional character that is based on your ideal customer. Personas are generally created by talking to real users and segmenting their demographic and psychographic data to improve your product and it’s marketing.

Personas are incredibly important, with them being useful to grow and improve your product or business. They help uncover the different ways in which people use your product so that you can focus on providing a better experience for real people and their real use cases.

## Diagram Description automatically generatedPersona 1

## A person holding a book Description automatically generated with medium confidencePersona 2

## Diagram Description automatically generatedPersona 3

# Scenarios:

## What is a Scenario?

Designers need to understand their users if they want to make products that people will use. Only by understanding your users can you create solutions that help them achieve what they want to do. An effective way to understand the people you’re designing for is to map out and create user scenarios. User scenarios provide an opportunity for us to put ourselves, as developers, in the shoes of the user through the form of a brief story that details the user’s needs to be effective in achieving their goals.

## Scenario 1 (Accessibility):

Caoimhe O’ Donnell (21) is an undergraduate student studying Business in WIT. She’s in her third year of a four-year course and finds it vital that she be efficient in her studies. She feels as if she’s spent the last two- and a-bit years of her studies unnecessarily wasting time when it comes to basic college tasks such as checking her timetable, viewing lecture notes, or communicating with lecturers and other students.

Currently, if she wants to view her timetable, she must load up the WIT website and input her course/group details. If she wants to view previous lecture recordings or lecture notes, she must log into Moodle and navigate through the page, and if she wishes to communicate with lecturers, she must figure out the best application to use, whether it be Teams, Slack, Moodle or e-mail. This creates avoidable confusion that adds hassle to an already hectic student life.

She would love to have access to an application on her smartphone that houses these various features all under one roof as she feels it would greatly assist her and others with being time-efficient in college. Woodle would solve this need by providing everything Caoimhe needs and more, all neatly confined within one centralized application.

## Scenario 2 (Communication):

George is a full-time calculus lecturer in WIT, with multiple classes teaching calculus of different levels to different year groups. George knows that calculus is quite a difficult section of maths to both learn and teach, so he must communicate with his students quite often to answer their questions and help them learn.

However, George is forced to use four different communication methods – Moodle messages, Slack, Microsoft Teams and Email. It’s very hard to keep track of multiple messages, and know which to respond to in order, when so many third-party apps are used. Students always ask him which platform to ask their questions on, and George always struggles to give an answer because technically none of them are preferable, as they all have their flaws. He needs one system where he can see all his students, let them upload photos of problems, ask questions and have an easy way of communicating with him. He doesn’t want a delayed Teams notification or a student misspelling his email address to get in the way of help, or for students to feel ignored.

This is where Woodle comes into play. Woodle as a centralized WIT app can combine different features of all those apps into one. Students can see their different classes, lecturers and classmates, in a sectioned, user-friendly interface. They are automatically added to these, so no more searching for a lecturer’s email to ask for a link invitation to another app. With Woodle, students will be able to easily ask George for help, and upload photos of their problems, where George will be able to draw on and show them their mistakes. George will also be able to create threads of common problems that students have in different parts of calculus, so students have access to help and solutions without even having to contact him.

## Scenario 3 (Flexibility):

Catriona is responsible for administration in the WIT fees office.

Her daily responsibilities involve delegation, keeping track of student fees, calculating the fees due for each student, and assisting students who are struggling to keep up with fees to ensure that every effort is made to keep students enrolled in their course.

Catriona finds that her productivity and desirable outcomes are thwarted by a lack of instant communication with students, and payment gateway flexibility.

As students are currently required to contact the fees office by email or in person, Catriona may not know about a student’s financial situation until it is too late. As well as poor communication, students are required to make a direct payment using a credit/debit card. This reduces accessibility to certain third-party payment schemes such as Humm/Flexifi, certain types of long-term credit card instalment plans, and certain types of directly underwritten bank and credit union loans.

To solve this, Woodle will provide a portal for instant communication, information about payment options/deadlines, and a flexible payment gateway that accepts various forms of payment. Students will have the ability to directly link their student account to their payment platform of choice.

# User Stories:

## What is a user story?

A user story is a general explanation of a software feature, from the perspective of the end user. User stories are usually communicated using informal language, as it an explanation of features in a simple way. User stories are used for customers to understand how a feature will be valuable for them, without complicating things.

## Automatic Contact Integration:

This feature will automatically bring your lecturers and classmates into your account as contacts. This way you can message them without having to search for their email information first. It will save time and stop typos in email addresses etc.

## Automatic Timetable Integration:

Your timetable will be automatically uploaded every Friday evening based on your modules and class groups. This way you won’t have to put all your details into the WIT website, and then make a separate timetable with just your classes from the generic timetable. Woodle will do it all for you and have it available for you to look at.

## Payment System:

The payment system in Woodle will allow you to view their fees due, and their due dates. It will also allow you to directly contact the fees office regarding any queries you may have. You will be able to choose from multiple payment gateways, such as Stripe, Revolut, Swift, PayPal, Humm, and even Crypto.

## Consolidated Communication:

You will be able to contact anyone who is related to the college. It will be easy to find those who you contact frequently, and to set up groups. You will be able to communicate with a large group, without receiving mass replies that may be directed at an individual. It will also be possible to set up automated messaging regarding deadlines, upcoming assignments, etc.

## Zoom Integration:

Woodle will include an integrated Zoom plugin, making it incredibly easy for students to join online lectures and view past Zoom recordings from within the Woodle application. So long as the student has the Zoom client installed on their machine, one click is all it will take to immediately join the lecture. For lecturers and other faculty, they can create their zoom schedules and start meetings with a single click.

## Easily Accessible Materials:

The application will automatically display any modules that the student is enrolled in, including modules that they may be repeating. Lecturers will have full control of the look and layout of their module page, with the ability to upload class materials in an efficient manner with tabs. Lecturers will also be able to create quizzes, puzzles and more to help their students maximise their learning. Students will have access to information areas regarding the college, their course and more, as well as past-exam papers and continuous assessments from previous years.

# Revised Features List:

* Student communication, allowing students to communicate with each other on a one-to-one basis, as well as on a group basis using integrated instant messaging service.
* Faculty communication, allowing faculty to communicate with each other and with students, on a one-to-one and one-to-many basis using integrated instant messaging and announcement services.
* Students will be able to add classmates and lecturers as Woodle contacts and access their direct messages from this view.
* Access to material for each module. Material is added/removed by lecturers and easily accessible for students. This replaces the current Moodle system though is very similar in its appearance. Will also feature course related material and past exam papers.
* Lecturers will be able to create quizzes, puzzles and more to help their students maximize their learning in a fun and intuitive manner.
* Timetable system, per group basis, as opposed to per course basis. Timetables automatically generated when student selects their department, school and course.
* Flexible timetable solution, allow lecturers to choose from available rooms and time slots. Also allow students to choose their individual stream to filter out other related streams in their course from their view.
* Zoom integration, with a built in Zoom plugin within the app, students and lecturers can schedule, start and join zoom conferences at the touch of a button. Past cloud recordings will also be available for students to view.
* Flexible payment gateway solution, allowing students to pay their fees through multiple payment platforms directly through the app. These payment platforms include VISA/Mastercard debit, Revolut, PayPal, CashApp etc.

# Prototype

## What is a Prototype?

A prototype is essentially a mock-up, simulation, or sample version of a final product, which UX designers and teams use for testing purposes before launch. The goal of the prototype is to test and validate ideas and appearance before eventually passing the final designs to engineering teams for the development process.

## Tool used to create Prototype

Jack used “uizard” to create the prototype, a free online tool that allows users to design and even test prototype smartphone applications. Jack found the tool effective but quite difficult to work with and found the process of placing elements in the correct places especially tedious. However, the ability to test the app by creating “buttons” to jump between screens is an incredibly useful tool that really brought Woodle to life. [uizard.io](https://wit-my.sharepoint.com/personal/20093118_wit_ie/Documents/uizard.io)

## URL or Screen Shots (not all some)

Below are a few screenshots of the prototype application, as well as a URL to view the uizard page.   
Note: Not all screens are featured in the screenshots below. The entire prototype can be viewed at the link <https://app.uizard.io/p/bed5121a>

1. The “Sign In” and “Home” screens.

Graphical user interface

Description automatically generated

1. The “Profile” Screen

A cell phone with a person's face on the screen

Description automatically generated with low confidence

1. The “Modules” and “Messaging” screens

Graphical user interface, application

Description automatically generated