ITLC Timetable system

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Project Process

The software development process that we have chosen for our project is the Waterfall Model.

Advantages of Waterfall Model

We have chosen this model as the requirements are well understood and unlikely to change radically during development, problems in the projects are more likely to be sorted out early on and the model is rigid; making it easier to handle.

VS Iterative Development

Iterative development did not suit our project because there is a risk that with this process, a significant amount of resources could be wasted in making changes to initial design whereas the waterfall model asks for specific deliverables at each stage of process, making sure that each part of the project is fully complete.

VS Incremental Development

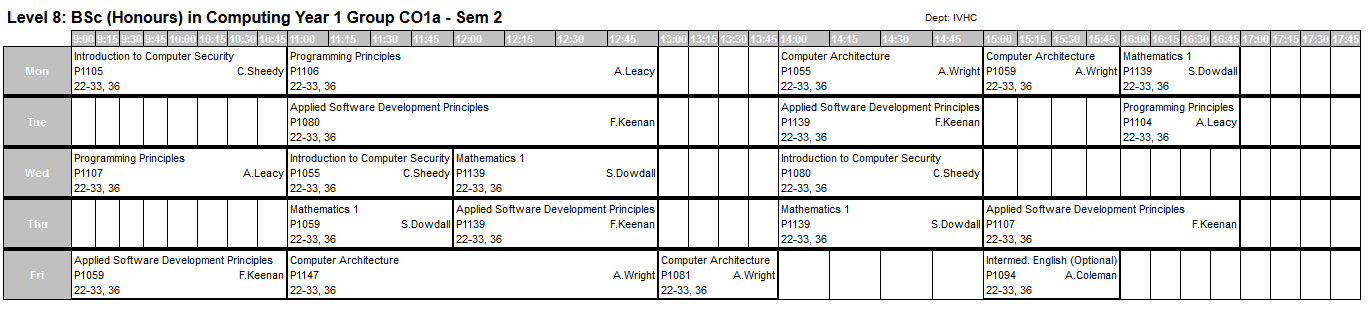
Incremental Development did not suit our project because it is not as cost-efficient as the waterfall model due to frequent software changes that would be avoided in the waterfall model and the process is not visible, making it harder to keep track of progress of the project.

Requirements Elicitation Techniques:

We used multiple techniques to create our list of requirements for the project, including analysing an existing system and interviewing someone who would be using the project.

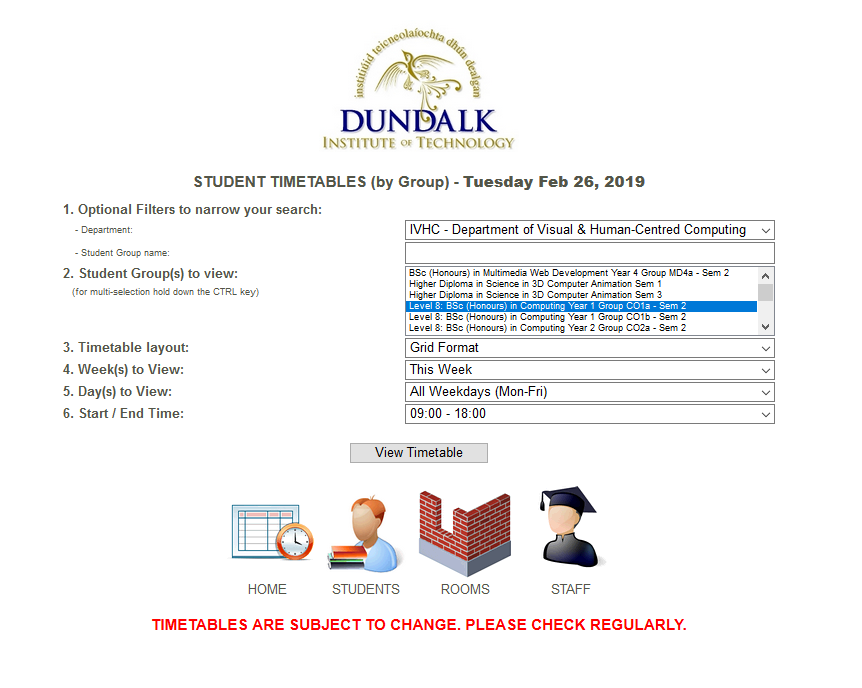
Analysis of Existing System

Example timetable:



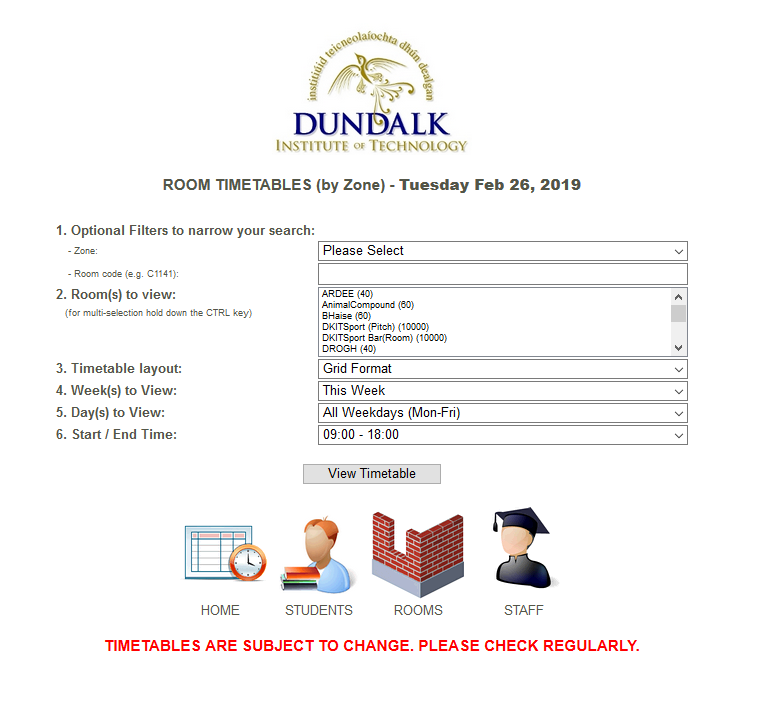
* Display timetable

Student timetable menu:



* Search timetables by student group
* Select display type (grid/list)
* Select time/date

Room timetable menu:



* Search timetables by room
* Select display type (grid/list)
* Select time/date

ITLC Timetable (sent by weekly email):

Interviews

Mentor

1. How do you use the current DkIT timetable system?

Check classes, check room availability

1. What do you like about it?

Flexibility, Ease of use

1. What could be improved?

Max of three timetables at a time on DkIT system, hard to organise multiple classes as an ITLC mentor

1. What features would you like to see in a timetable system for the ITLC?

Interface with DkIT / cross reference, booking system (options, times, e.g.), live updates, easily seeing currently booked classes

1. How would you use it?

Book classes during free time

Other notes:

Some students are reluctant to email to book classes, having a web-based booking system would be greatly beneficial.

Student

1. What do you like about our current timetable system?

Ease of use, flexible interface (layout preferences) and reliability

1. What do you not like about our current timetable system?

Main page doesn't 'remember' search filters (department, group, layout)

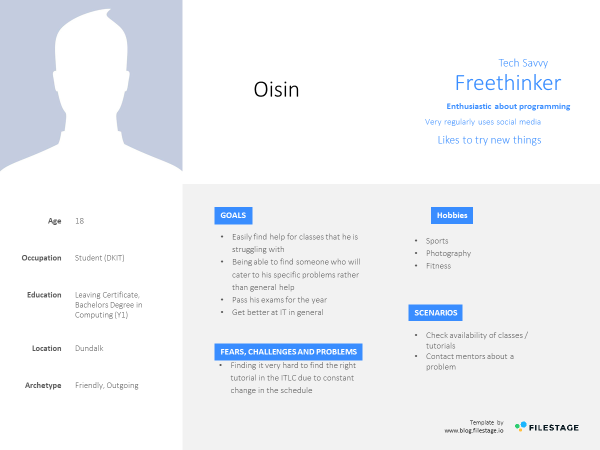
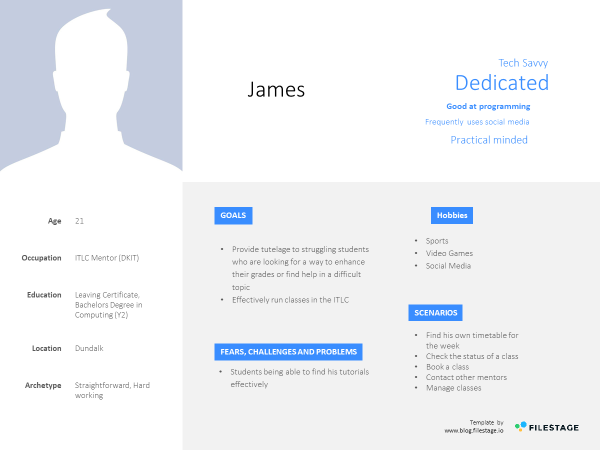
1. What would you add to the current timetable system?

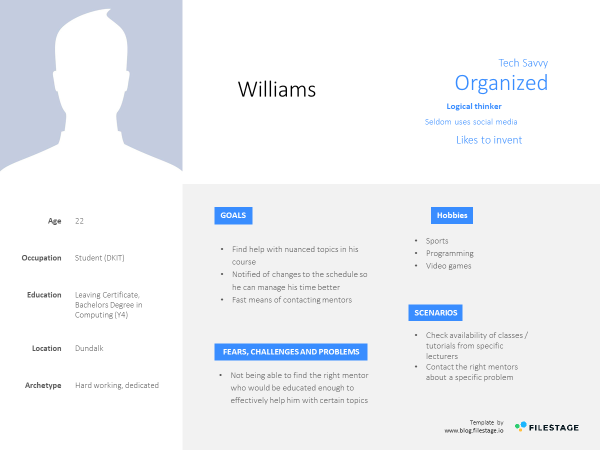
Email or text message notifications regarding changes in the timetable (class cancellation/addition etc)

1. What would you like to improve in the ITLC timetable system?

Message mentors, book or cancel tutorials, notify about changes/ booked tutorials/events

Personas





Requirements

User groups

* First Year students
* Final Year students
* Mentors at the ITLC

Functional requirements

* Show timetable
* Add lesson
* Remove lesson
* Change lesson
* Search lessons
* Request lesson
* Book classes
* Check against DkIT timetable system
* Check currently booked classes
* Ability to make direct contact to mentors in ITLC
* Notify users
* Monitor class attendance
* Track Progress
* Provide Online Resources

Non-functional requirements

* Security
* Performance (Response time, Ease of use etc.)
* Reliability
* Maintainability