Project Brief

Document Information

Project name:	Lost In Cork
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Owner	Group 6
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Approval

Date	Name and Signature

Notes

NEW TEXT

OLD TEXT

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Definition

Background:	With the current situation of COVID-19 everyone is deprived of the ability to adventure around Cork and see all its famous landmarks and areas. Inspired by GeoGuessr, we decided to make an interactive game where users show off their knowledge of Cork landmarks in a location guessing game.
Main Goal:	A Cork based geographic trivia game that tests users knowledge of Cork's famous landmarks. Each user will sign in creating a profile which will be used in a leaderboard to incentivise competition on who knows Cork best. We hope to provide an experience that can be enjoyed by all age groups.
Desired Outcomes:	A functioning web application which provides an enjoyable user experience. Register page where users can create profiles that track their activity, to be used in a leaderboard, to show top users of the application. Landing page in which users can select game modes, including starting a game, and have redirects to other pages. Page where users can upload their own photos, along with a geotag to increase user involvement.
Constraints and Assumptions:	The use of open source projects which adapt similar technologies as a base for our project and for referencing. Short development timeline with project length of 8 weeks, which includes time spent learning new technologies. May be heavy to locally store a large number of static files. Assumptions (technology used): ● Use of the Django framework ● Javascript ● Python ● Css ● HTML Additional Assumptions:

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	● Use of our own photos to prevent copyright issues.
Interfaces:	We will interface with the Google maps via their API. Users can use this to select their location guess to the given photo and the distance between the correct coordinates and their guess will compute their score.
Project Approach:	We will delegate roles based on our own skill set and communicate via slack with multiple weekly meetings to discuss our progress and any problems we may encounter.
Project Product Description:	A web-based geographic discovery game which takes users around some of the many well-known and unknown sights of Cork.

Outline Business Case

With COVID-19 having robbed many young people of their inner adventurer with constant lockdowns and 5km restrictions, we hope that our project can be a virtual competitive tour of the Rebel County.

Once the pandemic has come to an end, we feel this is an application that may be enjoyed by many Cork people. In this time of lockdown we tried to develop something that may provide amusement to the many who can't leave their home.We feel that such an app may remind people of the many wonders of Cork that they may not be able to see due to travel restrictions while also providing a fun interactive experience.

With our project we aim to increase users' knowledge of Cork's famous and mysterious landmarks by 6.9%.

Our project costs include:

- Maintenance
- Hosting the application
- Storing large amounts of Photos
- Time management

The projects benefits include:

- A uniquely Cork escape for users during lockdowns and restrictions.
- User involvement with our application.

Dis-benefits: Many moving parts which may cause errors.

Major Risks: Time management, underestimating the complexity.

To differentiate our project from other products with a similar premise, we have decided to put more emphasis on delivering a more educational system for kids and to help them learn about their surroundings in the city of Cork.

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We are also planning to highlight the leaders of each jurisdiction in the leaderboard for example “Champion of Douglas”.

Financial incentive: Possibly letting local cork businesses advertise on the webpage.

Key Stakeholders

Major Stakeholder	Notes
Nathan Crowley	
Mark Cullinane	
John Wales	
Jeff Attride	
Eoin Treacy	

Gantt chart

Week of 22/02/21

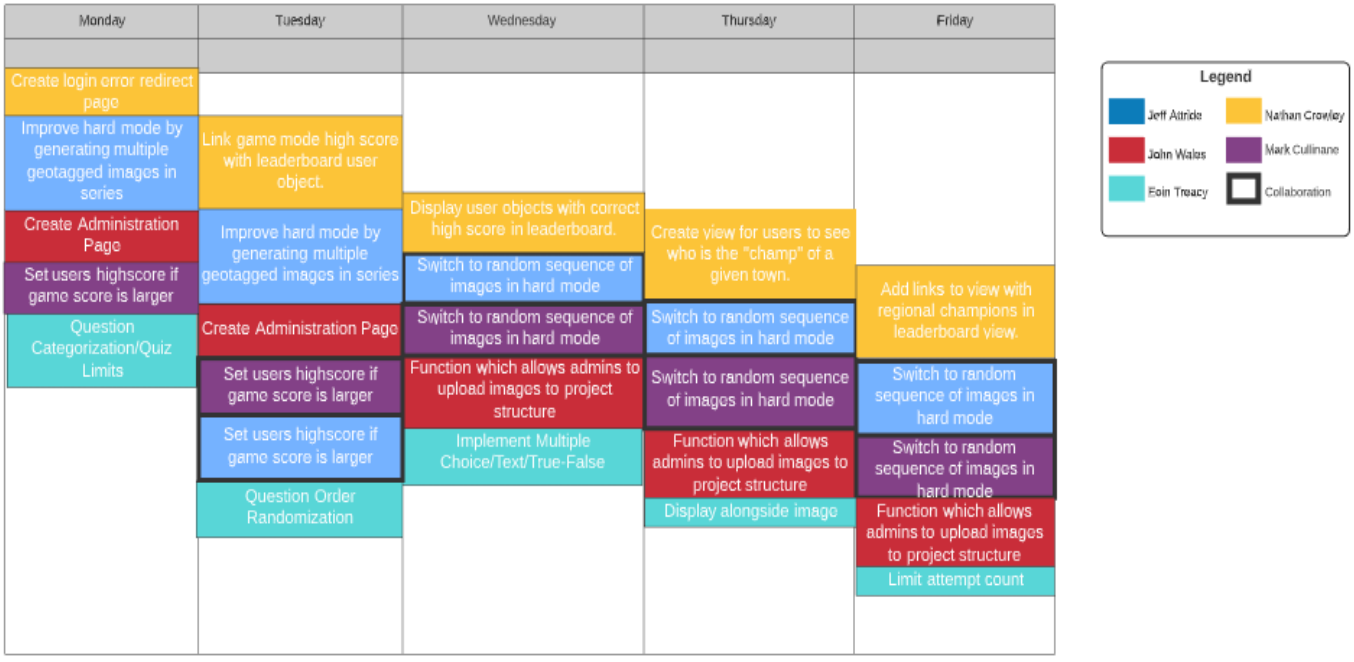

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Fig 1

The figure above is the tasks we assigned ourselves to complete leading up to the beta release.

Booch Diagram

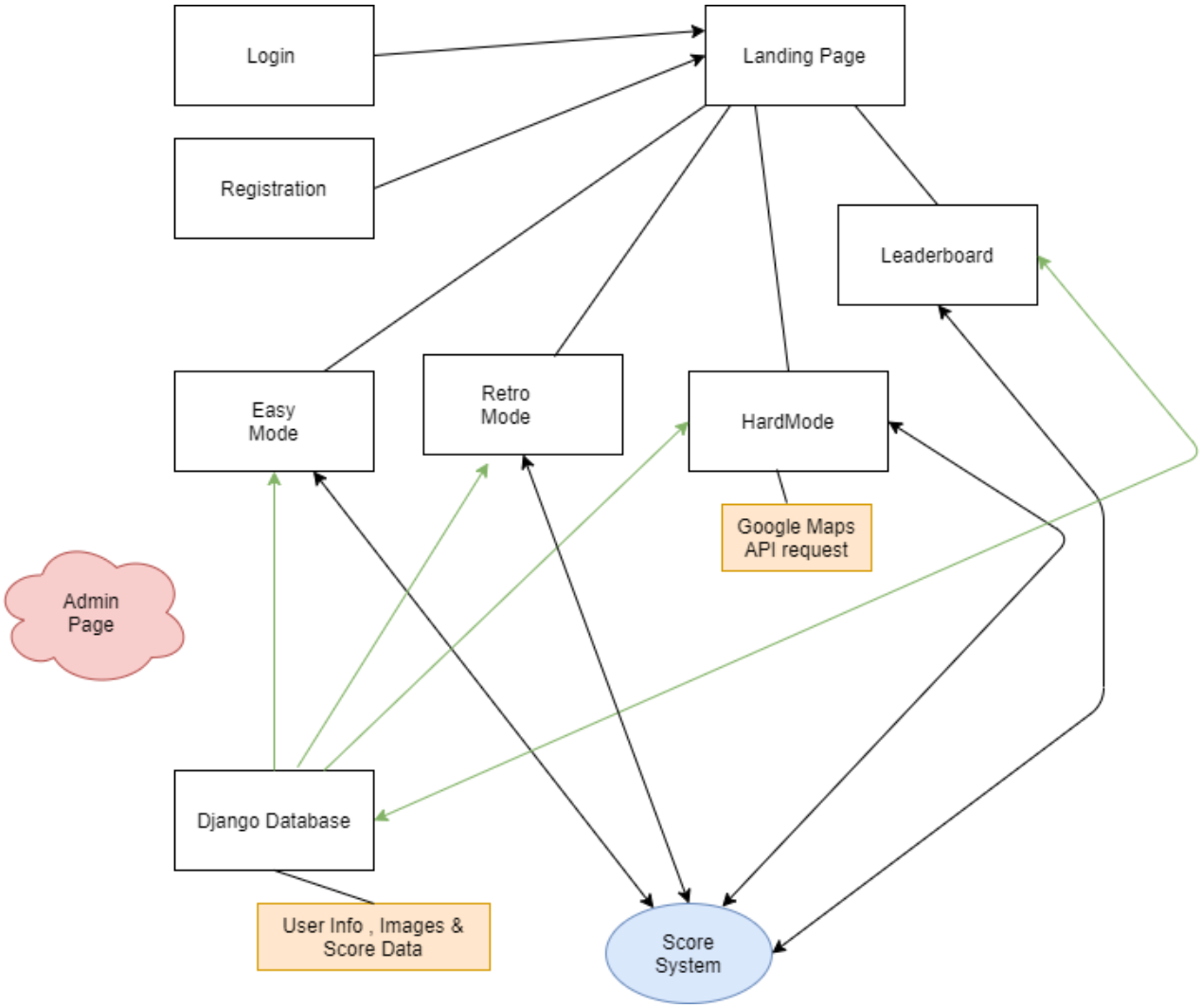

Fig 2

When a user accesses our application they are brought to out login/registration page, once they have been logged in they're then brought to the main menu where they can select from our different game modes 'Easy','Hard' and 'Retro'. All of these modes have an integrated scoring system which should display the users highscore to the leaderboard page when a game has finished. We also have a database for where the images we use in the modes are stored, the admin page is used by superusers to speed up the process of adding new questions by uploading the images directly.

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The system operates like the figure above. The user must login or register to be redirected to our landing page where they have a variety of options to choose from eg. Easy-mode, Hard-mode, Retro-mode and Leaderboard. All of these options are linked to our scoring system and django database. When a game is complete the user and their score for the specific gamemode appears on our leaderboard. We also have an admin page for superusers to upload images and manipulate user data.

Project Objectives

Our aim is to have tiered difficulty where we begin with a basic structure of the project. Throughout the development we will add more complex features as well as improving the core system.

Tier 1: Basic project with fundamental operations.

Tier 2: Allow ability to add users with login.

Tier 3: Add a leaderboard where users can compete based on their time taken to complete the game.

Tier 4: Allow the public to test and use the system. Fine tune any imperfections and remove bugs and errors.

Our aim for this project is to create a very simple but functional location guessing game.Throughout the development we will add more complex features as well as improving the core system. Below are our planned objectives :

Objective 1: Separate project tasks to developers.

Objective 2: Construct landing page, leaderboard system and login/registration pages for web application to save users data

Objective 3: Implement Google Maps API and store images of Cork to the database

Objective 4 : Combine all elements into functional web application

Objective 5 : Improve functionality and add more features to create a well-rounded user experience

MoSCoW Prioritization

Must have
- Functional Register and Login page ✓
- Well laid out landing page which has redirects to all aspects of the webapp ✓
- Well implemented game modes; easy and hard mode ✓

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	-	Functional database to store all user information and score data ✓
Should have	-	Leaderboard system which stores users high score
	-	Different gamemode difficulties ✓
	-	Large list of different locations in Cork and surroundings
Could have	-	Kids educational gamemode [trivia questions to help]
	-	Local advertising integrated into site to generate revenue
	-	360° street view of the location in hard mode
Won't have	-	Mobile app compatibility
	-	5 km radius restriction from your home on where you can explore

	Target	Tolerance
Scope	Account Creation/management system Landing Page with various game modes Leaderboard System Image Database Google Maps implementation	
Time	6 weeks	1 week
Cost	5 x developers pay over 7 weeks	
Quality	Easy to navigate UI system Various game modes (solo,versus,etc.) App users can upload own geo-tagged locations	Functional and secure login system Database to store all geotagged locations and where they are
Risks	Breaches in security	
Benefits	Increase users knowledge of Cork, Source of entertainment during lockdown	

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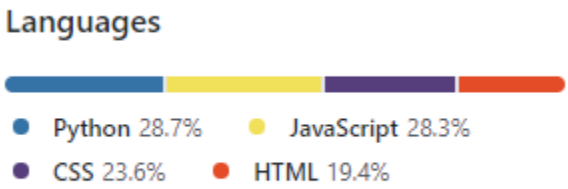
Recent Updates after Beta Release:

We took into account user feedback from our beta release. This resulted in major improvements with bug fixes especially in the leaderboard and scoring systems. We also did an overhaul of styling across the web application to make it very polished and professional. Now our site is live, we will monitor the user feedback from our contact us form if they encounter any bugs which we can resolve.

Technologies used:

In descending order of usage

1. **Django Framework:** The django framework is the backbone of our project, we chose this framework as it runs on python; a language our team is well acquainted with. We also liked some of the features that come with the Django framework such as a base html page which can be used throughout the project to develop new pages; this feature was used in our project to maintain the same theme/ grid layout throughout the project.
2. **Python:** as I mentioned already, the Django framework runs on python so this language played an integral role in our development, aside from its use in the framework, python was also used for housing some data structures such as dictionaries.
3. **Javascript:** all of the client side functionality stems from the use of Javascript in our project, Javascript is also the language used to interact with the Google Maps API in one of our game modes. Our easy game mode also runs using javascript.
4. **HTML5/CSS3:** Our pages are structured using HTML5 standards and styled using CSS3.
5. **SQLite:** our database is powered by SQLite. All our database queries are handled by the Django framework.
6. **Google Maps API :** In one of our game modes, we implemented the google maps API to create a unique game mode.
7. **Json:** We used JSON for creating some json objects which were passed between scripts.
8. **Lucid Chart:** we used LucidChart for designing our gantt chart & booch diagram.



Communication Methods:

1. **Facebook messenger:** We used this for quick responses to small queries etc. we had.
2. **Slack:** this was used for scheduling formal meetings.
3. **MS teams:** this was used to host team meetings.

Role	Reports to	Appointee

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Scrum Master	Product Owner	Weekly rotation
Python Developer & Backend Infrastructure **Description:** I have been developing functionality which uploads images using an administration page, without directly contacting the project structure. Images are stored within Django's db and are presented on the web app.	Scrum Master	John Wales
Javascript Developer & Game implementation **Description:** I work with creating the location guessing game experience and other features through Javascript, implementing easy-to-use UI across the platform and linking user information (username & score data) to other pages on the application.	Scrum Master	Mark Cullinane
Python Developer & Leaderboard implementation with User object creation **Description:** Create a django User model in Python to store username after registration as well as storing the user's score throughout the application. I implemented a Python django view to pass django user object attributes to HTML files in the app.	Scrum Master	Nathan Crowley

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API implementation/ Python Developer **Description:** I work with an external google maps Javascript API which is integrated into one of our game modes. Within the application itself I primarily use python and some Javascript to develop new features.	Scrum Master	Jeff Attride
Python Developer & Trivia Feature Implementation: **Description:** I'm currently working on a Subsidiary information feature running alongside the main project. This provides region-specific trivia information in a possible quiz format, displayed along original pictures of said regions.	Scrum Master	Eoin Treacy