School of Computing
CA326 Year 3 Project Proposal Form

SECTION A

Project Title: Digital Atlas
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Student 3 Name _____   ID Number _____
(A third team member is exceptional and requires detailed justification.)

Staff Member Consulted: Yalemisew Abgaz

Project Description (1-2 pages):

Description

Digital Atlas is a website that provides searchable general statistics information, filtering features and user feedback services to any users who are interested in finding local information regarding a specific area.

Digital Atlas will revolve around supplying area statistics such as:

- Local crime
- Schools in the area
- Traffic
- Local amenities
- Average price of a home in the area

This website is designed to serve as a valuable resource for:

- Users interested in information gathering about specific areas within Ireland.
- Users interested in locating areas based on specific conditions, such as the availability of schools in an area.

This website is aimed towards potential homeowner, users who are interested in opening businesses, investing in properties in profitable areas or anyone interested in the statistics and features of their area.

This information will supply crucial information needed to empower users to make informed property decisions depending on their individual preferences when considering areas of interest.

We will achieve this by using Irish datasets found on trusted sources such as the Central Statistics Office for area-wise crime statistics, Gov.ie for school and traffic data and Open Street Map for amenities etc. The websites functionality includes querying theses API's and datasets to fetch the data depending on the area/ specifications entered.

The way the website will be structured will be in a user-friendly manner.

- The user will click into the website and be presented with the homepage.
- The homepage will include information explaining the website and a search bar where the user is able to input the area of interest, or filter areas based on specific conditions.
- The user will then be redirected to the specified area details and related information of that area.
- In order to encourage user interaction, our website will provide a comments section on the area details page where the user will be able to leave feedback and insights into their personal experience in the area, which may further assist other users in their decision-making.

In essence, Digital Atlas is envisioned to be a user-focused website that leverages dependable data sources and modern technology to provide valuable area-specific insights to facilitate informed user decisions.

Division of Work

We plan on dividing the work out equally between the both of us depending on each of our strengths. Our main areas of work include the backend configuration and databases, frontend configuration, general design of the webpage, testing and ensuring the webpage is suitable for a large demographic of users.

Currently we plan on dedicating time every week to devising a weekly schedule detailing the current tasks we expect to complete per week. We keep track of these assigned tasks on a shared Trello board to ensure no tasks are left undone and no person is left with too much to do. We also have an open communication to eradicate any misunderstandings of tasks.

Programming language(s)

- Python, Javascript, JSX, SQL, HTML, CSS

Programming tool(s)

- Django, React, MySQL Workbench, GitLab, Trello, Visual Studio Code, JEST, PyTest-django, React Testing Library, Postman

Learning Challenges

- Pytest-django: used for testing Django codes, which is the main back-end tool for this website.
- React Testing Library: used for testing REACT codes, which is the main front-end tool for this website.
- JEST: also used for testing REACT codes, which is the main front-end tool for this website.
- Postman: used for API documentation.

Software/ Hardware platform

- Chrome / Microsoft Edge
- Linux
- Windows
- PC/ Lab Machines
- Git