

# Research Document

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TECHNOLOGY  

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CARLOW

At the Heart of South Leinster

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## Project Description

Create a website/app similar to the early days of Facebook. Users can create a profile and update their status and their wall and share with others.

### 1. Similar Websites

#### 1.1. Facebook [1]

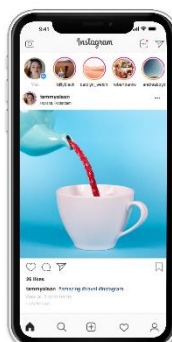
“Facebook, Inc. is an American social media and technology company based in Menlo Park, California. It was founded by Mark Zuckerberg, along with fellow Harvard College students and roommates Eduardo Saverin, Andrew McCollum, Dustin Moskovitz and Chris Hughes, originally as TheFacebook.com—today's Facebook, a popular global social networking website. Facebook is one of the world's most valuable companies. It is considered one of the Big Five technology companies along with Microsoft, Amazon, Apple, and Google”. [2]



<https://www.lifewire.com/tutorial-how-facebook-works-2654610>

#### 1.2 Instagram [3]

“Instagram is an American photo and video-sharing social networking service owned by Facebook, Inc. It was created by Kevin Systrom and Mike Krieger”. [4]



<https://blog.usejournal.com/instagram-a-ux-case-study-a0236f5a6a44?gi=5b1ea72a8f09>

## 2. Technologies

### 2.1. Cloud

#### Amazon Web Services (AWS) [5]

“Amazon Web Services is a subsidiary of Amazon that provides on-demand cloud platforms and APIs on metered pay-as-you-go basis. AWS provides 165 services to the customer”. It also provides free 12-month trial for most of its services.[6]

#### Microsoft Azure [7]

“Microsoft Azure is a cloud computing service created by Microsoft for building, testing, deploying, and managing applications and services through Microsoft-managed data centers. Azure provide 100+ services to the customer”. [8] I has 12-month free trial, 25+ always-free services and gives \$200 credit to explore Azure for 30 days.[9]

#### Google Cloud Platform (GCP) [10]

“Google Cloud Platform (GCP), offered by Google, is a suite of cloud computing services that runs on the same infrastructure that Google uses internally for its end-user products, such as Google Search, Gmail and YouTube. Alongside a set of management tools, it provides a series of modular cloud services including computing, data storage, data analytics and machine learning”. [11] It has 12-month free trial and gives the customer \$300 in credits to use for premium services.[12]

I decide to use AWS as it provides most of its services for free for 12 months.

### 2.2. Browsers

#### Google Chrome [13]

“Google Chrome is a cross-platform web browser developed by Google. It was first released in 2008 for Microsoft Windows, and was later ported to Linux, macOS, iOS, and Android. The browser is also the main component of Chrome OS, where it serves as the platform for web apps”. It has over 50% global market share. [14]

#### Firefox [15]

“Firefox is a free and open-source web browser. It is developed by the Mozilla Foundation”. Firefox is available on Windows 7 or higher, Linux and MacOS. Firefox has 9% usage share. [16]

I decided that my website will support both chrome and Firefox browsers as they are the most popular.

### 2.3. Database

#### AWS RDS

RDS is relational database that is available on several instance types such as MySQL and MariaDB. It is easily scalable, and it provides tools to migrate your existing database to RDS. [17]

I decided to use RDS as it is part of the Amazon Web Services. It provides all the functionality that I need to use.

## 2.4. Languages

### HTML

HTML is a standard language to display documents in web browser. It is mostly accompanied by other technologies such as CSS and JavaScript. It was written by Sir Tim Berners-Lee in 1990. [18]

### PHP

PHP is a server-side scripting language which is used for developing Static Websites and Dynamic Websites or Web Applications. It can only be interpreted by server if it is installed. [19]

### JavaScript

JavaScript is a programming language. It is high level language. JavaScript, alongside HTML and CSS, is one of the core technologies to use for web development. [20]

### CSS

CSS is stylesheet language use for describing the presentation of a document. First released in 1996. [21]

### Python

Python is a programming language that can be used to build web applications. It was developed by Guido van Rossum and released in 1991. [22]

### Django

Django is python based, open-source web framework. It was released in 2005. Its main goal is to ease to make web applications. [23]

I decided to use HTML, PHP, JavaScript and CSS for my website.

## 3. Tools

### 3.1. Version Control Software

I will be using GitLab as version control software because it is easy to use and allows both private and public repositories.

### 3.2. IDE

#### Brackets

Brackets is source code editor. It is mainly used for web development. It is free and open source. It was released in 2014. [24]

#### Notepad++

Notepad++ is source code edit as well as text editor. It was released in 2003. [25]

I decided to use Brackets as it provides preview of the website build into it. This makes it much easier to see how the website looks while coding.

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