

Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	02 Nov 2023
Team ID	NM2023TMID02145
Project Name	Create a google my business profile

Technical Architecture:

This is a high-level overview of the technical architecture for a Google My Business profile creation and management tool. The specific implementation will vary depending on the specific requirements of the system.



Table-1: Components & Technologies:

S. No	Component	Description	Technology
01.	User interface	The Google My Business user interface is designed to be simple and easy to use. It allows businesses to create and manage their listings, add photos and videos, and respond to reviews.	Django, Flask, or Ruby on Rails.
02.	Dataset collection	The Google My Business data set is a large and complex dataset that includes information about millions of businesses around the world.	Google search , google maps, google places API
03.	Preprocessing	Before the Google My Business data set can be used to train a deep learning model, it needs to be preprocessed.	NLP, machine learning , data cleaning.
04.	Deep learning model	Google My Business uses deep learning to power a variety of features, including: <ul style="list-style-type: none"> * *Ranking business listings in search results* * *Suggesting relevant businesses to users* * *Detecting and removing spam reviews* * *Translating business listings into different languages* 	TensorFlow, Keras, PyTorch
05.	Model Training	To train a deep learning model for Google My Business, Google uses a variety of techniques, including	tensorflow cloud TPUS, PyTorch

06.	Model Evaluation	Once the model has been trained, Google evaluates its performance on a held-out test set. The test set is a set of data that the model has not seen before during training. Google uses the test set to assess the model's accuracy and generalization ability.	ROC curves, F1 scores, held out test set
07.	Deployment	The first step is to identify the technologies you need to improve your Google My Business profile.	Local SEO tools , CRM tools, BI tools

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
01.	Open-source frameworks	An open source framework is a software framework that is distributed under an open source license, which means that anyone can use, modify, and redistribute the software.	Django, ruby on rails , Laravel.
02.	Security implementations	Security is an important consideration for any Google My Business profile. There are a number of things you can do to improve the security of your profile, including:	User authentication mechanisms, security frameworks like OWASP

03.	Scalable architecture	scalable architecture is a system that can be scaled up or down to meet changing demand. This is important for Google My Business profiles, as the amount of traffic to your profile can vary over time..	Microservices architecture, Docker, Kubernetes
04.	Availability	Availability is the ability of a system to be up and running when you need it. This is important for Google My Business profiles, as you want to be able to access your profile at all times.	Use a reliable hosting provider, Use a back up solution .
05.	Performance	Performance is the speed and responsiveness of a system. This is important for Google My Business profiles, as you want your profile to load quickly and respond to user input promptly..	Optimize your images , CDN, Use a caching plugin