

# Software Installation Manual

## 1. Introduction

This document provides installation steps and usage instructions for setting up the current version of BizMapper. BizMapper is designed to provide an intuitive interface for discovering and reviewing businesses based on customer feedback, location, and smart search algorithms. The software is still in development, and while the UI is currently in mock-up form, the backend functionalities are fully operational, including:

- **Sentiment analysis**
- **Smart search using cosine similarity**
- **Business review management**

### Current Version Details:

- **Operating System Compatibility:**
    - Windows 10/11
    - macOS
  - **Backend Status:** Functional (Sentiment analysis, smart search, business reviews)
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## System Requirements

Before you begin, ensure your system meets the following minimum requirements:

- **Operating System:**
  - Windows 10 or higher
  - macOS
- **Software Requirements:**
  - Python 3.13
  - MongoDB
- **Libraries/Dependencies:**
  - Pandas
  - Flask
  - scikit-learn

- openai =1.69.0
  - Flask-PyMongo
  - Flask-CORS
  - werkzeug
  - TensorFlow, Keras, or other NLP-related libraries (for future use)
  - Other dependencies listed in requirements.txt
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## Installation Steps

### 1. Clone the Repository

First, clone the repository to your local machine. Open a terminal and run:

```
bash
```

```
`git clone https://github.com/codingcrew-bizmapper/BizMapper`
```

```
`cd bizmapper`
```

### 2. Create a Virtual Environment

It's recommended to set up a virtual environment to manage dependencies.

```
bash
```

```
`python -m venv myenv`
```

Activate the virtual environment:

- On **Windows**:

```
`.\myenv\Scripts\activate`
```

- On **macOS/Linux**:

```
`source myenv/bin/activate`
```

### 3. Install Dependencies

Once your virtual environment is activated, install the required dependencies by running:

```
bash
```

```
`pip install -r requirements.txt`
```

## 5. Environment Variables

Create a .env file in the root directory of your project and add any necessary environment variables, like the OpenAI API key for sentiment analysis or business description generation.

```
bash
```

```
OPENAI_API_KEY=your-openai-api-key
```

```
MONGO_URI=
```

```
mongodb+srv://Bizmapper:BcSUIOKV7dFRCbx9@cluster0.fxttvqr.mongodb.net/
```

## 6. Run the Application

Now, you're ready to run BizMapper!

In your terminal, run:

```
bash
```

```
`python app.py`
```

This will start a development server, and you can access the app at <http://127.0.0.1:5001/>.

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## Using BizMapper

### Login / Signup

BizMapper allows users to sign up, log in, and manage their profiles. The user's credentials and favorite businesses are stored in MongoDB. Once logged in, users can:

- Browse businesses
- Mark businesses as favorites

### Business Search and Review System

The app integrates a smart search engine based on **TF-IDF** and **Cosine Similarity** to allow users to search for businesses based on keywords or business categories. Reviews are generated based on user input, and businesses can be rated.

### Profile Management

Users can upload a profile picture, view their favorites, and manage account settings.

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## Troubleshooting

## **Common Issues:**

### **1. MongoDB Connection Errors:**

- Ensure MongoDB URL is correct.

### **2. Module Not Found Error:**

- Ensure you've installed all dependencies by running:

bash

```
`pip install -r requirements.txt`
```

### **3. Invalid Credentials on Login:**

- Double-check the username and password. Passwords are securely stored as hashed values in the database.
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