**Project**

**JSPR-Techies**

**User Manual**

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Detail all necessary steps needed to deploy/install your system. Provide all necessary technical specifications. Instructions and scripts. (2)

# Steps to install the JSPR-Techies System

Step-1: Install Python 3.x and MySQL database if not already available.

Step-2: Install MySQL workbench.

Step-3: Create a virtual environment to isolate dependencies. To do that add the below script to your command prompt and activate it.

*For windows: $ python -m venv venv*

*venv\Script\activate*

*For macOS/linux: $ python3 -m venv venv*

*source venv/bin/activate*

Step-4: Install Flask and Flask-SQLAlchemy

*$ pip install Flask Flask-SQLAlchemy*

Step-5: Install project dependencies.

*$ pip install -r requirements.txt*

Step-6: Create MySQL database named ‘university’. Also create MYSQL user and grant privileges.

*CREATE DATABASE university ;*

*CREATE USER 'your-username'@'localhost' IDENTIFIED BY 'your-password';*

*GRANT ALL PRIVILEGES ON university.\* TO 'your-username'@'localhost';*

Step-7: Create the following tables.

* students

*CREATE TABLE `students` (*

*`umich\_id` int NOT NULL AUTO\_INCREMENT,*

*`first\_name` varchar(50) DEFAULT NULL,*

*`last\_name` varchar(50) DEFAULT NULL,*

*`major` varchar(50) DEFAULT NULL,*

*PRIMARY KEY (`umich\_id`)*

*) ENGINE=InnoDB AUTO\_INCREMENT=98989895 DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci*

* articles

*CREATE TABLE `articles` (*

*`article\_id` int NOT NULL AUTO\_INCREMENT,*

*`title` varchar(1000) DEFAULT NULL,*

*`author` varchar(100) DEFAULT NULL,*

*`content` text,*

*PRIMARY KEY (`article\_id`)*

*) ENGINE=InnoDB AUTO\_INCREMENT=5655 DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci*

Step-8: Configure the flask application and run the flask application.

*$ python app.py*

The application can be accessed on the URL: *http://127.0.0.1:5000.*

pip

flask

Explain the main features of the system to a potential user who may not be familiar with it. (3 pts)

# Main features of JSPR-Techies

The main features of JSPR-Techies are as shown below:

* Informative Content

JSPR-Techies contains well-researched articles written by students, professors and alumni of the University of Michigan academic community covering latest news and technological advancements in a wide variety of topics.

* Categorizing into departments and subtopics

Organizing content into categories gives an effective platform for readers to narrow down their search into what they are interested.

* AI assisted Search Recommender

The AI assisted recommender is responsible for enhancing user experience and content discoverability. Users are recommended list of top five articles based on the search keyword they enter.

* Collaboration and Knowledge Sharing Component

Facilitating collaboration and knowledge sharing is a fundamental aspect of our system.  It fosters a sense of community within the University of Michigan academic community.

* Customizable User profiles

The user can make a profile with information about the topics that interest him, and the system will make relevant article suggestions accordingly.

* User friendly interface design

While interacting with JSPR-Techies, we intend to provide the users a seamless and enjoyable experience by integrating interactive GIFs, logos, and vectors to our user interface design, making the process visually appealing and user-friendly.

 Provide a walkthrough for the main scenario of using your system; include screenshots as necessary. (3 pts)

**Main/Expected Scenario of operation**

The main scenario and screenshots depicting the normal operation is as shown below:

1. The user clicks on the click button provided at the welcome wolverine page. Then the user enters the UMID. If the UMID exists in the system, the user is logged into the JSPR-Techies system. (add screenshot)
2. Next the user is brought to the page with the department heading to choose from. (add screenshot)
3. Further the user clicks on any one of the department headings as per his/her interest. (add screenshot)
4. This takes him to the next page asking him to enter keywork to narrow down his search. (add screenshot)
5. Further according to the entered keyword, the AI recommender shortlists top five articles and recommends it by displaying it to the user. (add screenshot)
6. The user clicks on the article that interests him from the list. (add screenshot)
7. The selected article loads on the page. (add screenshot)
8. The user is redirected to the list of articles where he can either select another article or he can logout. (add screenshot)

Provide walkthroughs for at least two additional scenarios with

additional/alternative functionality; include screenshots as necessary. (2 pts)

**Alternate Scenarios of operation**

The alternate scenarios possible of operation of the system are as below:

**Case 1**

1. The user clicks on the click button provided at the welcome wolverine page. Then the user enters the UMID. Now if the UMID entered is incorrect, he gets an error message “Not a UMICH student”. (Add screenshot)
2. The user is taken back to the login page.

**Case 2**

1. The user clicks on the click button provided at the welcome wolverine page. If the user clicks the submit button without entering the UMID, he gets an error message “UMID not provided”. (Add screenshot)

**Case 3**