

1. Applications needed to run the code :

No.	Application	Version	Description
1	Python	3.7.3	<i>Python</i> is an interpreted, high-level and general-purpose programming language. Python's design philosophy emphasizes code readability with its notable use of significant whitespace.
2	Flask	1.0.2	<i>Flask</i> is a lightweight WSGI web application framework written in Python. It is designed to make getting started quick and easy, with the ability to scale up to complex applications.
3	SQL-Alchemy	2.4.1	<i>SQLAlchemy</i> is the Python SQL toolkit and Object Relational Mapper that gives application developers the full power and flexibility of SQL.
4	HTML	5	<i>HTML5</i> is a markup language used for structuring and presenting content on the World Wide Web. It is the fifth and last major <i>HTML</i> version that is a World Wide Web Consortium (W3C) recommendation.

2. How to install and run the code :

Step I : Installing Python :

```
sudo apt update
sudo apt -y upgrade
sudo apt install -y python3-pip
```

Step II : Installing Flask :

On Linux, virtualenv is provided by your package manager:

```
//Debian, Ubuntu
$ sudo apt-get install python-virtualenv
//CentOS, Fedora
$ sudo yum install python-virtualenv
//Arch
$ sudo pacman -S python-virtualenv
```

```
mkdir myproject
cd myproject
```

```
python3 -m venv venv
. venv/bin/activate
$ pip install Flask
```

Step III : Installing SQL-Alchemy :

```
$ pip install sqlalchemy
```

Step IV : Clone the repository from github using the command -

```
$ git clone https://github.com/sayalideo/RBAC-Implementation
```

Step V : Installing other Dependencies :

```
$ pip install bcrypt
$ pip install flask-login
$ pip install flask-wtf
```

Step VI : Run the code using :

```
$ python run.py
Or
$ flask run
```

Now, view the running application on localhost:5000

3. Any other specifications about dependent applications :

No.	Dependency	Version	Description
1	Flask-Bcrypt	0.7.1	<i>Flask-Bcrypt</i> is a Flask extension that provides bcrypt hashing utilities for your application.
2	Flask-Login	0.5.0	<i>Flask-Login</i> provides user session management for Flask. It handles the common tasks of logging in, logging out, and remembering your users' sessions
3	Flask-WTF	0.14.3	<i>Flask-WTF</i> provides your Flask application integration with WTForms.

4. Settings of your code and dependent application :

\$ pip install bcrypt

\$ pip install flask-login

\$ pip install flask-wtf

Technology Stack :

- i. Browser : Google Chrome, Firefox, etc.
- ii. Code Editor : Visual Studio Code, Sublime Text, etc.
- iii. Version Control : Github for Desktop, Gitkraken, etc.
- iv. Technology Stack :
 1. Frontend : HTML, CSS, Jinja 2 Templates
 2. Backend : Python Flask Framework.
 3. Database : SQLAlchemy - A Python SQL toolkit

Change directory into the cloned project.

On the terminal type : flask run

View working project on *localhost:5000*