**Creating a Books Web Application**

The flask-restful and flask-jwt-extended libraries were installed using the commands provided. Two screenshots were provided, one showing the successful installation of the flask-restful library and the other showing the successful installation of the flask-jwt-extended library.

A screenshot of a computer program

Description automatically generated

A screenshot of a computer program

Description automatically generated

The Project 15.1 folder was downloaded and unzipped on the machine. A screenshot was provided to show that the folder was successfully opened using VS Code.

A screenshot of a computer

Description automatically generated

Two more books of personal choice were added to the app.py file.

A screenshot of a computer program

Description automatically generated

The cover images for the newly added books were added to the static folder. Two screenshots were provided, one for each new cover image, to show that the new cover images were successfully uploaded and opened using VS Code.

A green book with gold text

Description automatically generated

A screenshot of a book

Description automatically generated

A line of html code was added to the books.html file to match each book cover to the book in the books list.

A screenshot of a computer

Description automatically generated

Two more users, one with the role of reader and one with the role of admin, were added to the app.py file.

A screenshot of a computer screen

Description automatically generated

The admin\_required(fn) function was written in the app.py file. This function gets the claim from the users defined in the code and allows the users to add books only if their role is set to admin. If a user’s role is not equal to admin, then the function returns an exception.

A screen shot of a computer program

Description automatically generated

Some improvements are made to the code.

A screen shot of a computer program

Description automatically generated

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Description automatically generated

A screen shot of a computer program

Description automatically generated

The code was run and debugged in VS Code.

A screenshot of a computer

Description automatically generated

The page localhost:5000/ was opened in the browser.

A screenshot of a computer

Description automatically generated

The admin username and password defined in the app.py file were used to log in.

A screenshot of a computer

Description automatically generated

After logging in, the “Books” tab was navigated to. A screenshot was provided to show that all the books defined in the app.py file along with their correct cover images could be successfully seen.

A screenshot of a computer

Description automatically generated

The “Add Books” tab was navigated to. A screenshot was provided to show that a book could be added. Then, the admin account was logged out of.

A screenshot of a computer

Description automatically generated

The reader username and password defined in the app.py file was used to log in.

A screenshot of a computer

Description automatically generated

The “Add Books” tab was navigated to. An attempt was made to add a new book. An error message was received. A screenshot of the error message was provided to show that a new book could not be added to the website using an account with only reader privileges.

A screenshot of a computer

Description automatically generated