

To-Do Web App Notes:

The given tasks have been completed and committed with proper comments.

A new requirements files **requirements-2.txt** has been uploaded.

Updated Instructions to run the app:

When running the application on a server which does not have the database **alayatodo.db**, following commands need to be run in the same order as written:

- A. `$ pip install -r requirements-2.txt`
- B. `$ python main.py initdb`
- C. `$ python resources/migrate.py db init`
- D. `$ python resources/migrate.py db migrate`
- E. `$ python resources/migrate.py db upgrade`
- F. `$ python main.py`

If the application is closed and needs to be run again this time, then only command **F** of the above commands needs to be executed in order to run the application again.

If the application needs to be run of a server already having an old version of database **alayatodo.db**, then this version needs to be migrated to a new one using the commands **C, D** and **E**.

Explanation of MIGRATE commands:

TASK-2 required a new field to be added to the table **todos** in order to mark a todo as complete and keep track of it.

To achieve this, the schema of table **todos** was changed to include a new field named **complete**. The field **complete** is set to **0** if a todo is incomplete and set to **1** if a todo is complete.

The file **migrate.py** in **resources** folder contains the db class models which are used to migrate the database.

The 3 commands (**C, D** and **E**) executing the file **resources/migrate.py** migrates and upgrades the database **alayatodo.db**.

Important Commits Messages:

- TASK-1: ToDo description validation (to check it is not empty) added;
Changes made to files **views.py** and **todos.html**
This validation was handled both at front-end and at the **back-end** (in case a user is able to remove the HTML **required** attribute, or a browser which does not support HTML5)
- TASK-2: Database Migration Script added;
Files added: **migrate.py**; Files modified: **todo.html**, **todos.html** and **views.py**

- TASK-4: Confirmation message functionality added whenever a user adds a to-do, removes a to-do, marks a to-do complete or incomplete.
Files modified: todos.html and views.py
- Task-6: SQLAlchemy used to provide an ORM layer so that SQL queries can be replaced.
Relevant file addition: models_orm.py; Relevant file modification: views.py
- TASK-5: Pagination added.
Files modified: views.py, todos.html
- TASK-3: User given an option to view a todo in JSON format.
Files modified: views.py, models_orm.py, todos.html
- Database directory path changed to make it compatible with all OS and Multiple Bug Fixes
This commit changed the DATABASE path making it compatible to directories of different Operation Systems
This commit fixed a few bugs related to pagination.

Other important fixes:

Before the web-app displayed the to-do tasks of all the users making it possible for one user to remove the to-do tasks of other users.

This was fixed in commit with the message 'TASK-3: User given an option to view a todo in JSON format.'

Now each user can see only his/her own to-do tasks, once logged in.

Final notes:

The .py and .html files which have been edited contains old commented code and new code, along with proper messages in comments indicating which changes are for which of the tasks given.