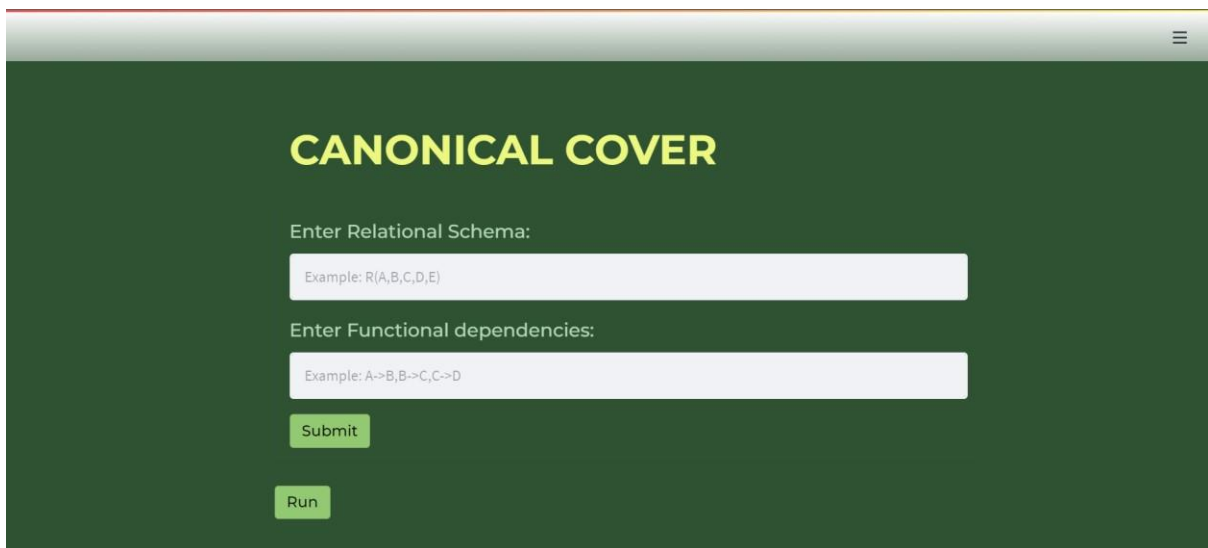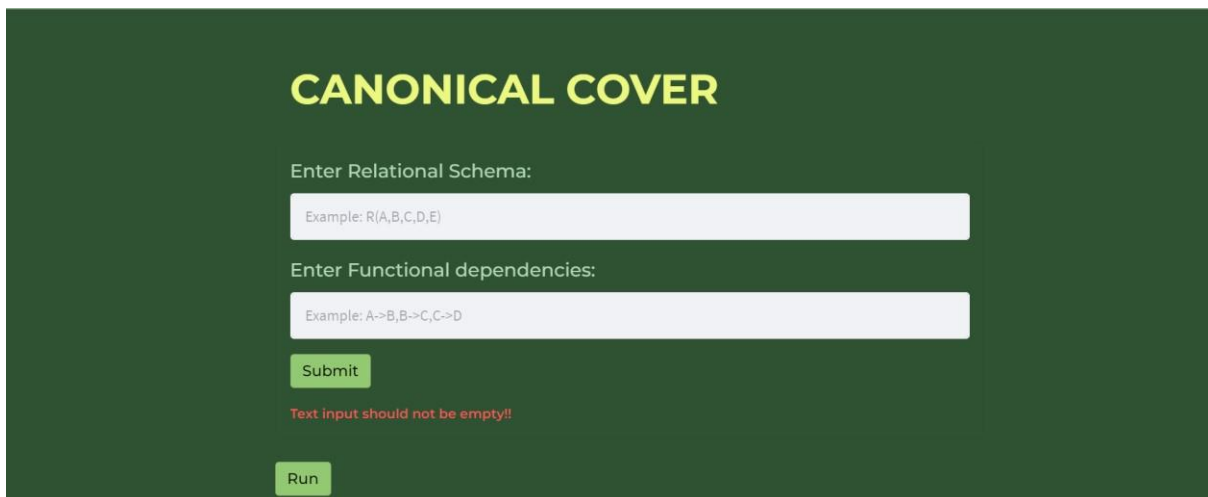# DBMS Canonical Cover

Project Features:

In this project we show step wise solution of canonical cover of any functional dependency using python GUI. For python GUI, we have used streamlit.

Project Screen Shots:

If we submit without enter any values it will give us error.

If attributes in functional dependency are not present in relational schema then it will give us error about that.

Here is our example.

After giving input click on submit button. Then click on run button to get the result.

ACDF->EG will decompose into:

ACDF->E

ACDF->G

Functional dependency list after step-1: ['A->B', 'ABCD->E', 'EF->G', 'EF->H', 'ACDF->E', 'ACDF->G']

Step-2: Remove Extra Functional Dependency.

Here ACDF->E is extra functional dependency because closure of ACDF with right attributes and closure of ACDF without right attribute is same.

Here ACDF->G is extra functional dependency because closure of ACDF with right attributes and closure of ACDF without right attribute is same.

Functional Dependency list after step-2: ['A->B', 'ABCD->E', 'EF->G', 'EF->H']

Step-3: Remove Extra Attributes from functional dependency

In ABCD->E functional dependency attribute B is extra attribute.

Because B is present in the closure of ACD->E and closure of ACD->E is ['A', 'C', 'D', 'B', 'E']

Functional Dependency list after step-3: ['A->B', 'EF->G', 'EF->H', 'ACD->E']

Final Step: Compostion

In this step we will compose all our functional dependency.

After Composition here is functional dependency list: ['A->B', 'ACD->E', 'EF->GH']