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**UNIVERSITY OF PETROLEUM & ENERGY STUDIES**

**SCHOOL OF COMPUTER SCIENCE**

***Department of Cybernetics***

**GRAPHICS AND ANIMATIONS TOOLS**

**PROJECT REPORT**

SESSION (2020-21)

Course: B.Tech with specialization in Open Source & Open Standards

Submitted to: Submitted by:

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**OBJECTIVE:**

To make a book and animate it in blender.

[Link to the Animation](https://drive.google.com/file/d/1t0i7bjBNtM2QivqMsdMOQHCFqrlrS69P/view?usp=sharing)

**STEPS TO BE FOLLOWED:**

**Step 1.** Delete the cube

**Step 2.** Go to mesh and add a plane

**Step 3.** Go to edit mode, then from UV choose Smart UV Project

**Step 4.** Select the Material preview and then choose texture Paint

**Step 5.** Add a new texture with base color white

**Step 6.** If you want to write something on the book, you do so by using left mouse button

**Step 7.** Go to the modifier and choose Array Modifier and in the Z-axis increase the thickness according to the number of pages you want in the book.

**Step 8.** Make sure that you make the shape of the book be more rectangle than a square from X-axis

**Step 9.** Align the book along with x-axis

**Step 10.** Now the most important part is to change the pivot point of the book that we have created in order to animate the opening of book.

**Step 11.** Change the pivot point from Median Point to 3D Cursor.

**Step 12.** Go back to edit mode, now we have to make more pages in the book so that we can rotate it.

**Step 13.** From edge selection, go to rotation and rotate the page to the degree that you want.

**Step 14.** If you want to do it automatically, go to object mode and open object data properties and add as many shape keys as you want.

**Step 15.** Now back to edit mode and select another page and rotate it to the degree you want in order to make it look like the book is opening.

**Step 16.** Go back to object mode.

**Step 17.** And now to animate it, we will select the shape key and set the time frame according to us so that the pages a can open and close.

**Step 18.** Now, if you have set the relative frame rate to 50 secs, make sure to play the animation more than 50 sec so that the animation can go into the loop.

**Step 19.** Now add a camera and a light source to it. And arrange the camera to the best fit view.

**Step 20.** Render the Animation and save the same.

**OUTPUT SCREEN:**

