

CSE4204 | Spring 2020 | Final Assignment

[Marks 20] In this assignment you have to implement one of the following tasks listed in the table. The assignment serial number is randomly assigned for each student and is published in a separate table.

For each of the following assignment, there must be -

1. Multiple shaders for each 3D objects
2. Implementation of lighting
3. Perspective projection
4. Texture for each object
5. Animation
6. Mouse and keyboard interaction

Additional requirements for the assignment are provided in different columns of the table.

Note:

1. You can either use the library demonstrated in LAB-6 or do it from the scratch (i.e. assignment - 3).
2. No other libraries can be used.

Deadline: 30 March for both sections.

Table: List of assignment tasks

Sl	Title	3D Objects	Keyboard interaction	Mouse interaction	Animation
1	A reading a room	1. Chair [with texture] 2. Table [with texture]	Camera will move inside the room	Texture of the table will change	Light position will rotate around the room
2	Houses from outside	1. A building [with texture] 2. A cottage [with texture]	Camera will move around the houses	Texture of the cottage will change	Light position will rotate around the room
3	A car	1. Car body [with texture] 2. Car wheel [with texture]	Camera will move around the car	Light position will rotate around the car	Wheels will rotate
4	A helicopter	1. Helicopter's body [with texture] 2. Helicopter's wings [with texture]	Camera will move around the helicopter	Light position will rotate around the helicopter	Wings will rotate
5	A TV room	1. A LCD tv screen [with texture] 2. A TV stand [with texture]	Camera will move inside the room	Light position will rotate around the helicopter	Texture on the TV screen will change
6	A wardrobe	1. Wardrobe's body [with texture] 2. Wardrobe's drawers [with texture]	Camera will move around the wardrobe	Drawers will come out/ in	Light position will rotate around the room
7	A book	1. Book cover [with texture] 2. Book pages [with texture]	Camera will move around the book	Cover of the book will open and close	Light position will rotate around the room
8	A ludo game	1. Ludo board [with texture] 2. Ludo dice [with texture]	Camera will move around the ludo	Texture of the cottage will change	Dice will rotate
9	A airplane	3. Airplane's body [with texture] 4. Airplane's wings [with texture]	Camera will move around the airplane	Light position will rotate around the ca	Wings will rotate

Table: Student wise assigned task

STUDENT ID	Assigned Serial No.	STUDENT ID	Assigned Serial No.
160204004	3	160204061	3
160204007	7	160204064	2
160204008	2	160204065	8
160204011	7	160204066	1
160204012	7	160204070	4
160204013	1	160204072	8
160204014	6	160204073	1
160204015	8	160204075	7
160204016	7	160204077	3
160204017	2	160204080	9
160204021	8	160204081	8
160204022	4	160204082	1
160204024	7	160204083	9
160204025	6	160204085	8
160204028	7	160204087	5
160204029	4	160204088	4
160204030	7	160204091	3
160204031	7	160204092	3
160204033	7	160204093	4
160204036	8	160204094	8
160204038	4	160204096	9
160204039	7	160204097	2

STUDENT ID	Assigned Serial No.	STUDENT ID	Assigned Serial No.
160204040	5	160204098	3
160204041	7	160204099	1
160204043	4	160204100	6
160204045	1	160204101	6
160204048	6	160204102	6
160204051	8	160204104	4
160204052	4	160204106	5
160204053	9	160204108	8
160104119	2	160204109	1
160104021	2	160204110	7
160104062	6	160204113	2
		160204114	5
		130204070	7
		130204082	2
		140104074	4
		150204113	9
		160104003	4
		160104029	6
		140104067	9