EXPERIMENT 10

COMPUTER GRAPICS AND MULTIMEDIA

Aim

To bounce a ball using animation.

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EXPERIMENT - 10

AIM:

To bounce a ball using animation.

THEORY:

The bouncing ball exercise is a good place to start, because there are not too many controllers to use in a 3D application and because it deals primarily with basic movement. You should have a good idea of what a bouncing ball looks like.

You need to set up some ground rules for animation to get started; for example, setting a frame rate for the application. You will be using 30 frames per second.

To set the frames per second or fps:

Click Window > Settings Preferences > Preferences.

In the Preferences window, select Settings.

In the Settings dialog box, set the time option to NTSC[30 fps).

To bounce a ball using Key frame Animation.

STEPS:

Step 1: Select 'Animation' from main menu bar.

Step 2: Click 'Create' on Maya title bar and then click on 'Polygon's primitives' and then click on 'Sphere'.

Step 3: Click 'Move' tool to move the ball to position in a frame.

Step 4: Fix the position of the ball in a frame by pressing the 'Set key(Shortcut-S).

Step 5: Move to the next frame and set another position of the ball using Set key.

Step 6: Click 'Play' to view the moving ball.

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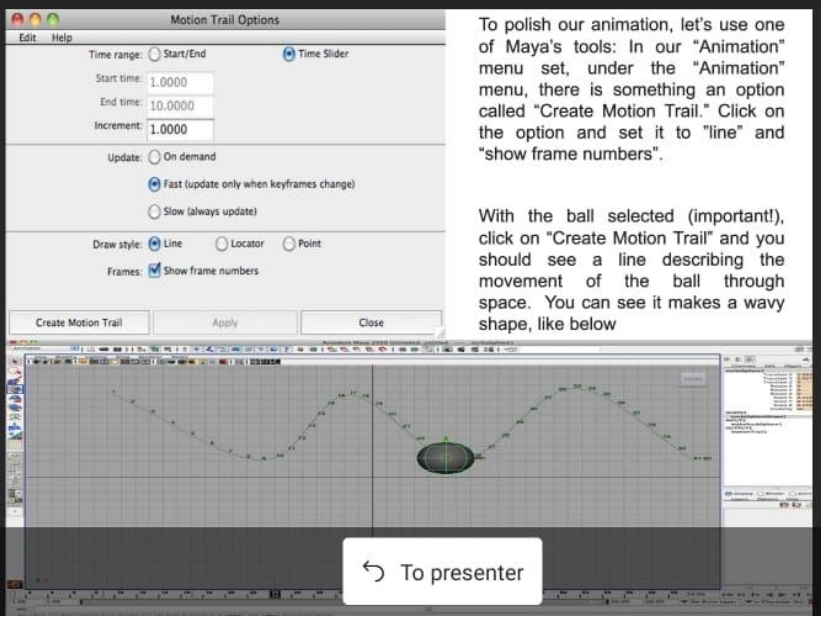

To polish our animation, let's use one of Maya's tools: In our "Animation" menu set, under the "Animation" menu, there is something an option called "Create Motion Trail." Click on the option and set it to "line" and "show frame numbers".

With the ball selected (important!), click on "Create Motion Trail" and you should see a line describing the movement of the ball through space. You can see it makes a wavy shape, like below

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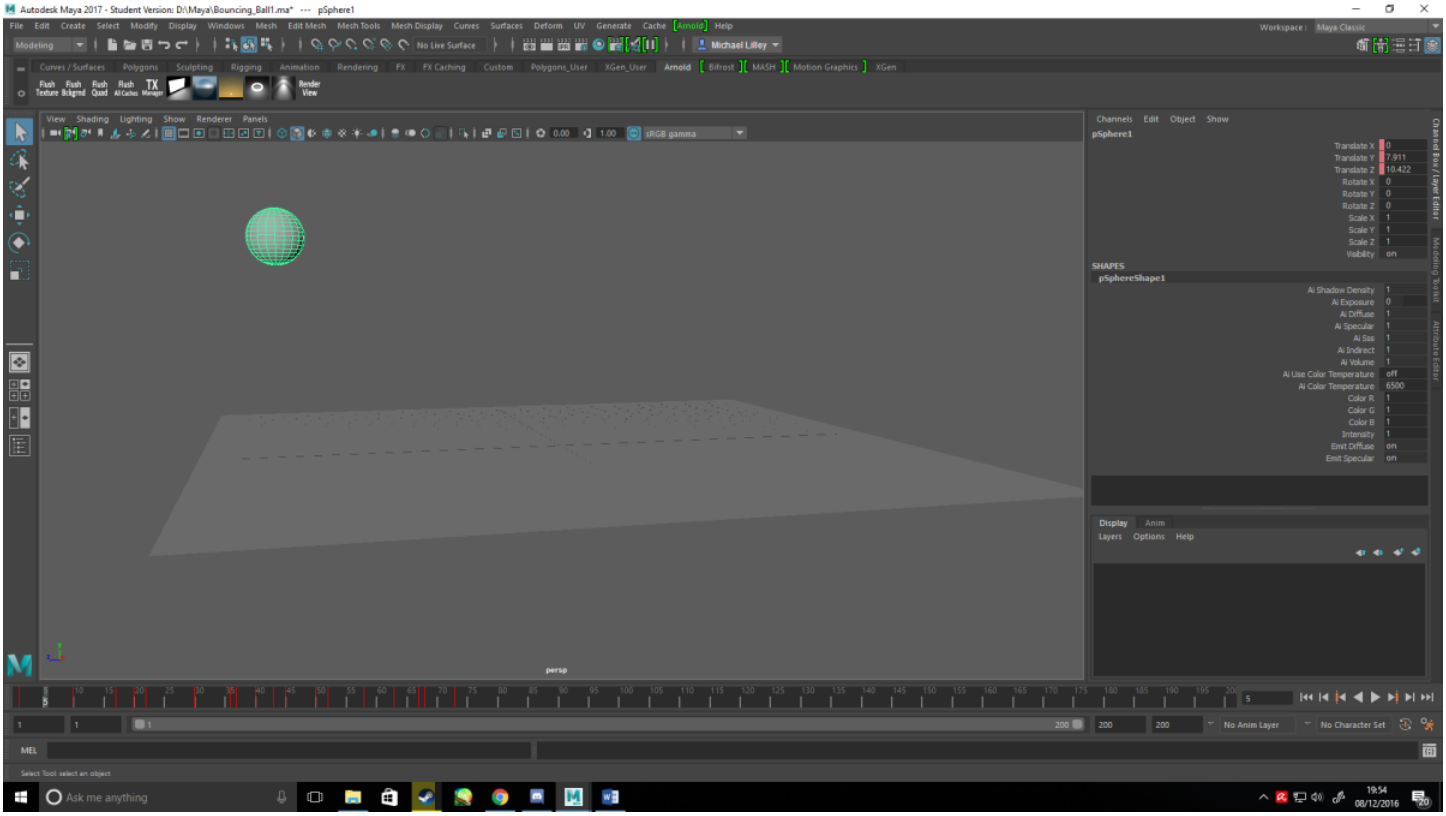
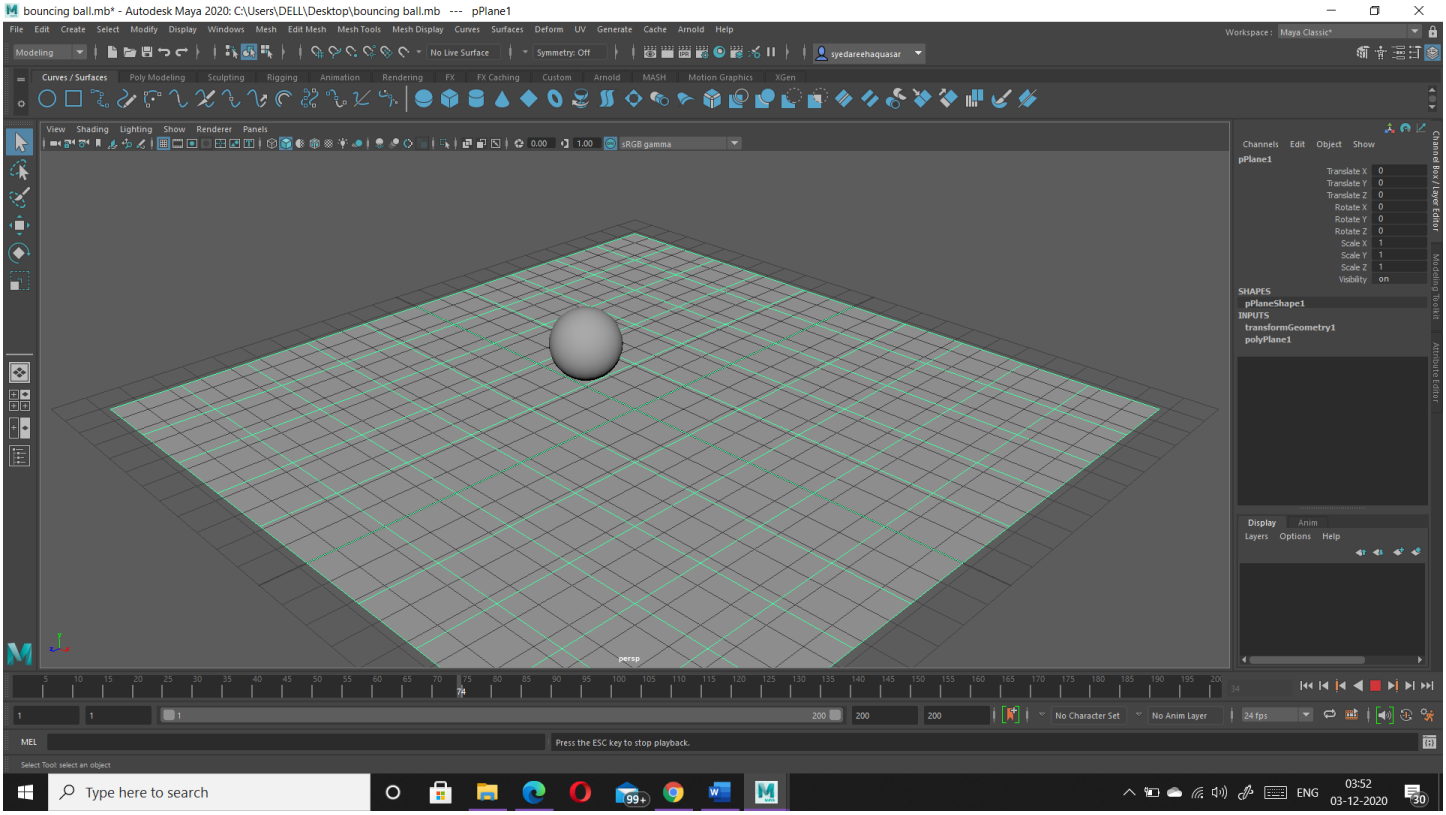
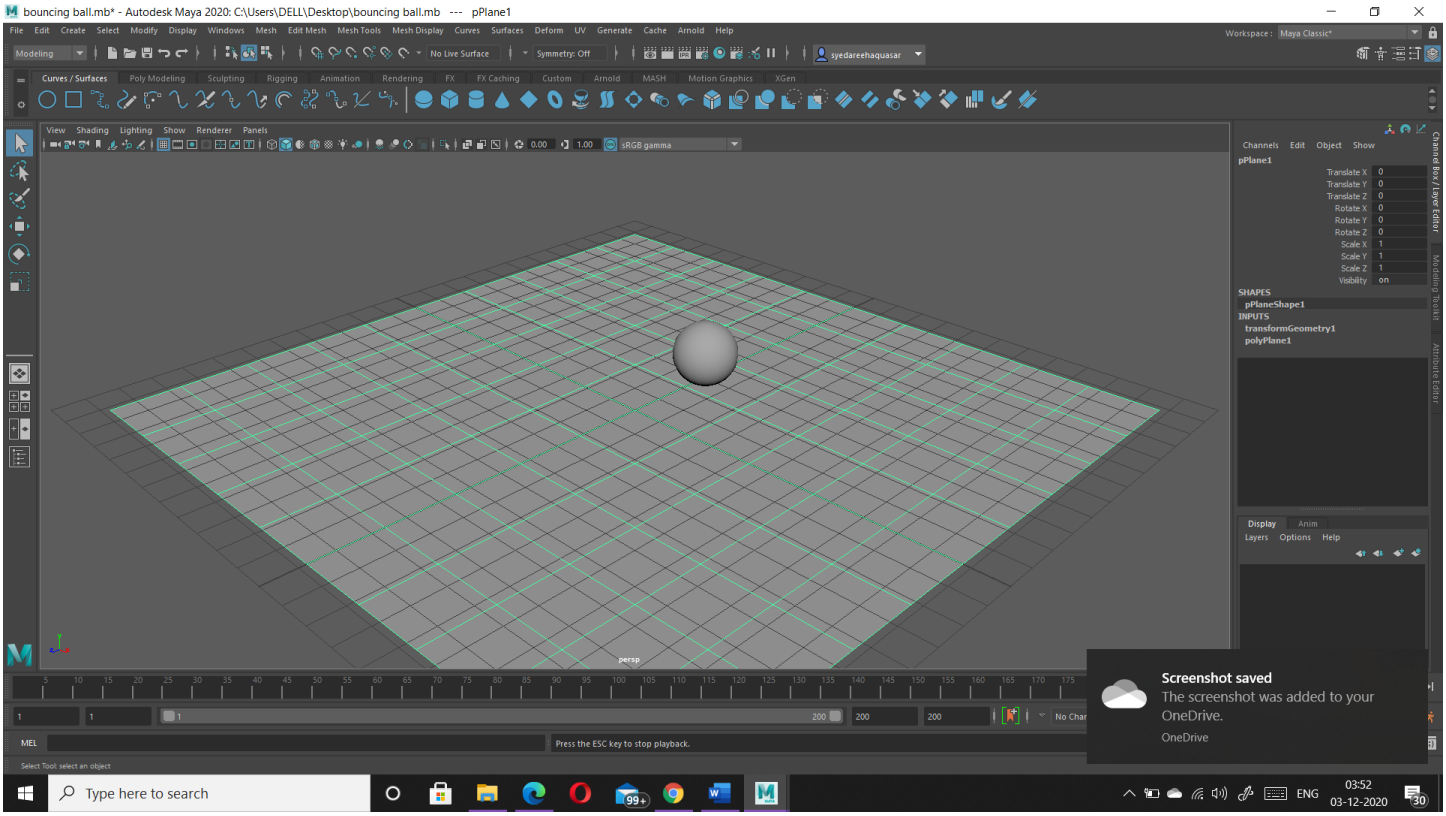
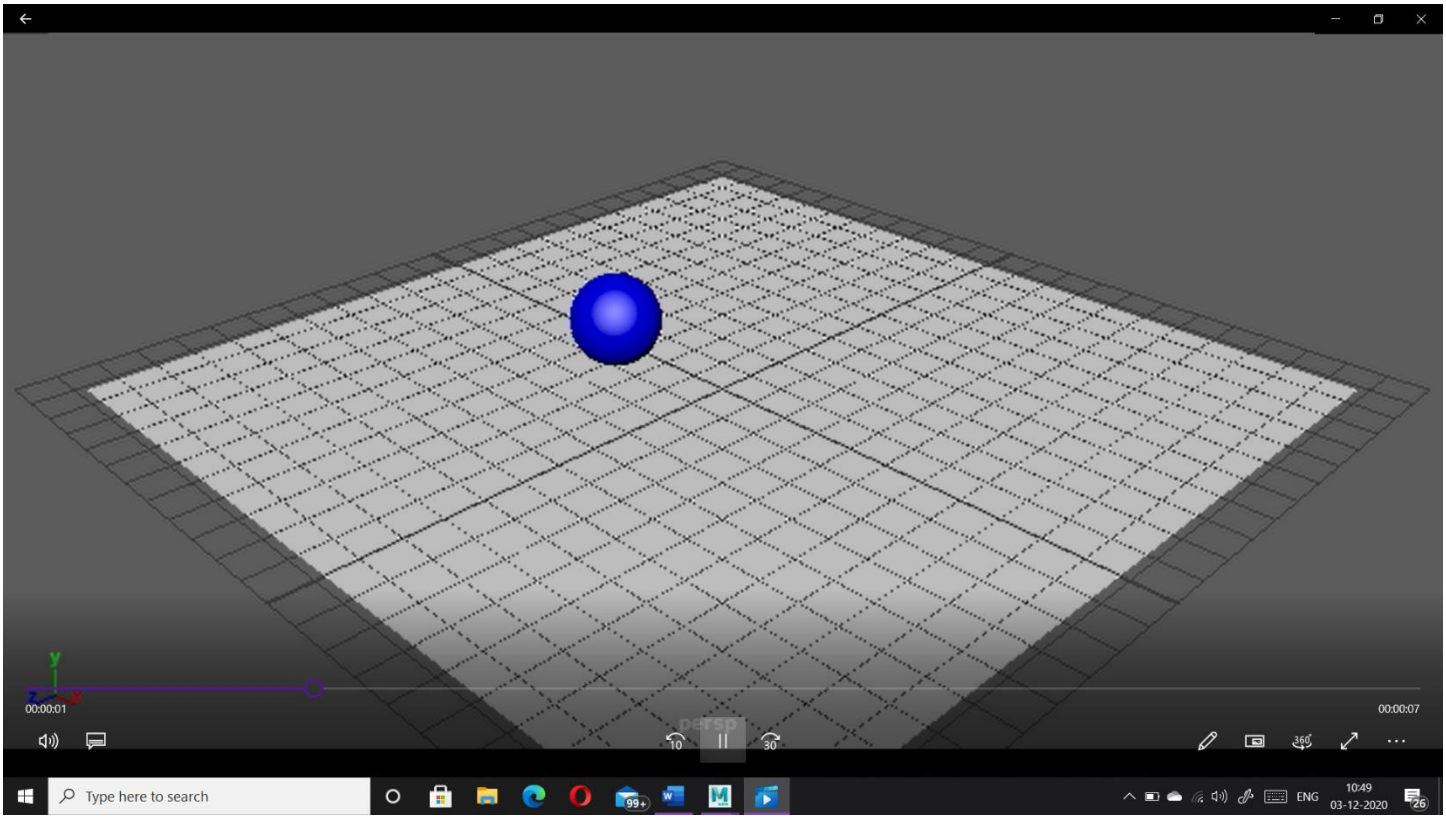
To presenter



Animation Screenshots



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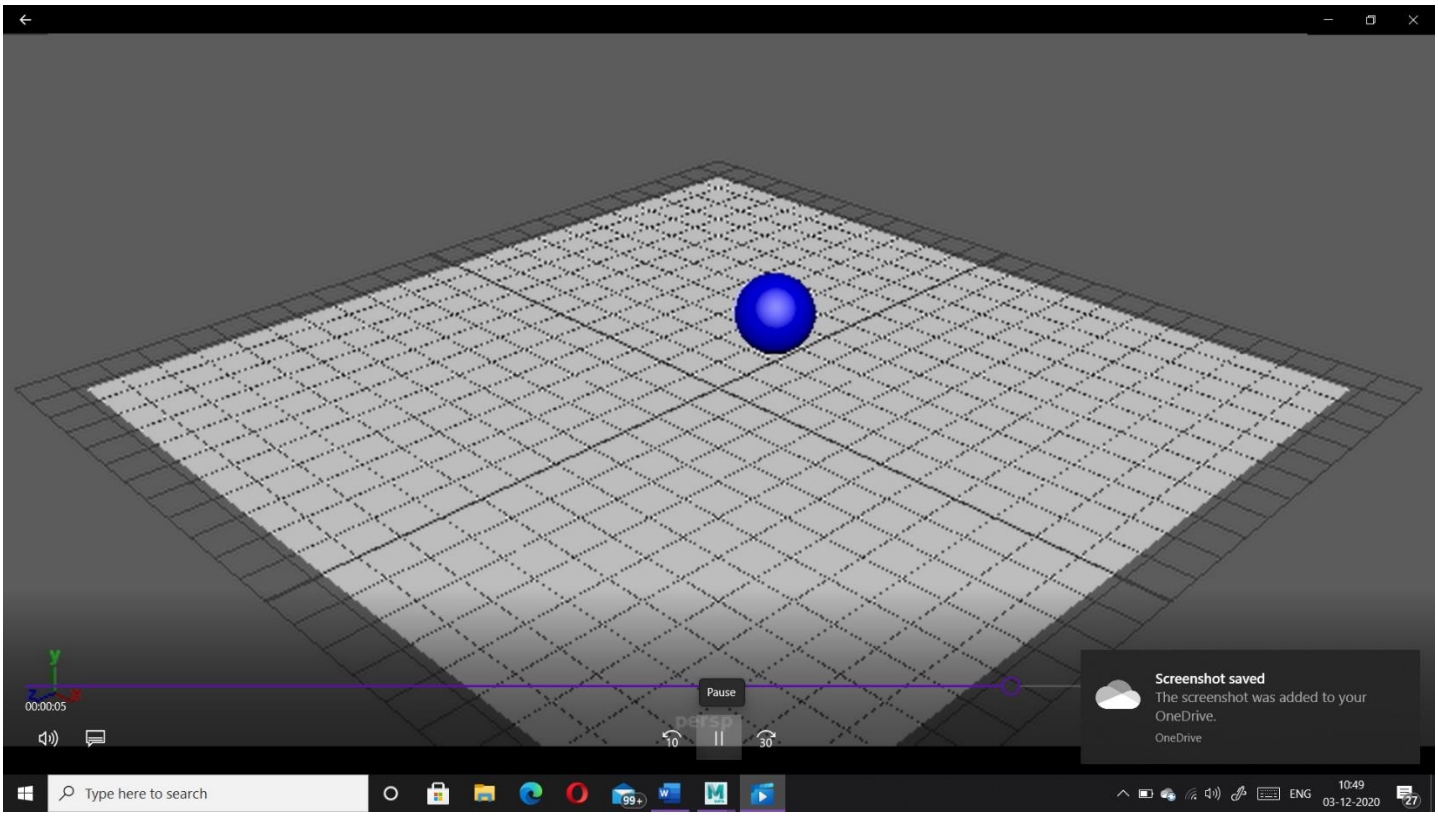
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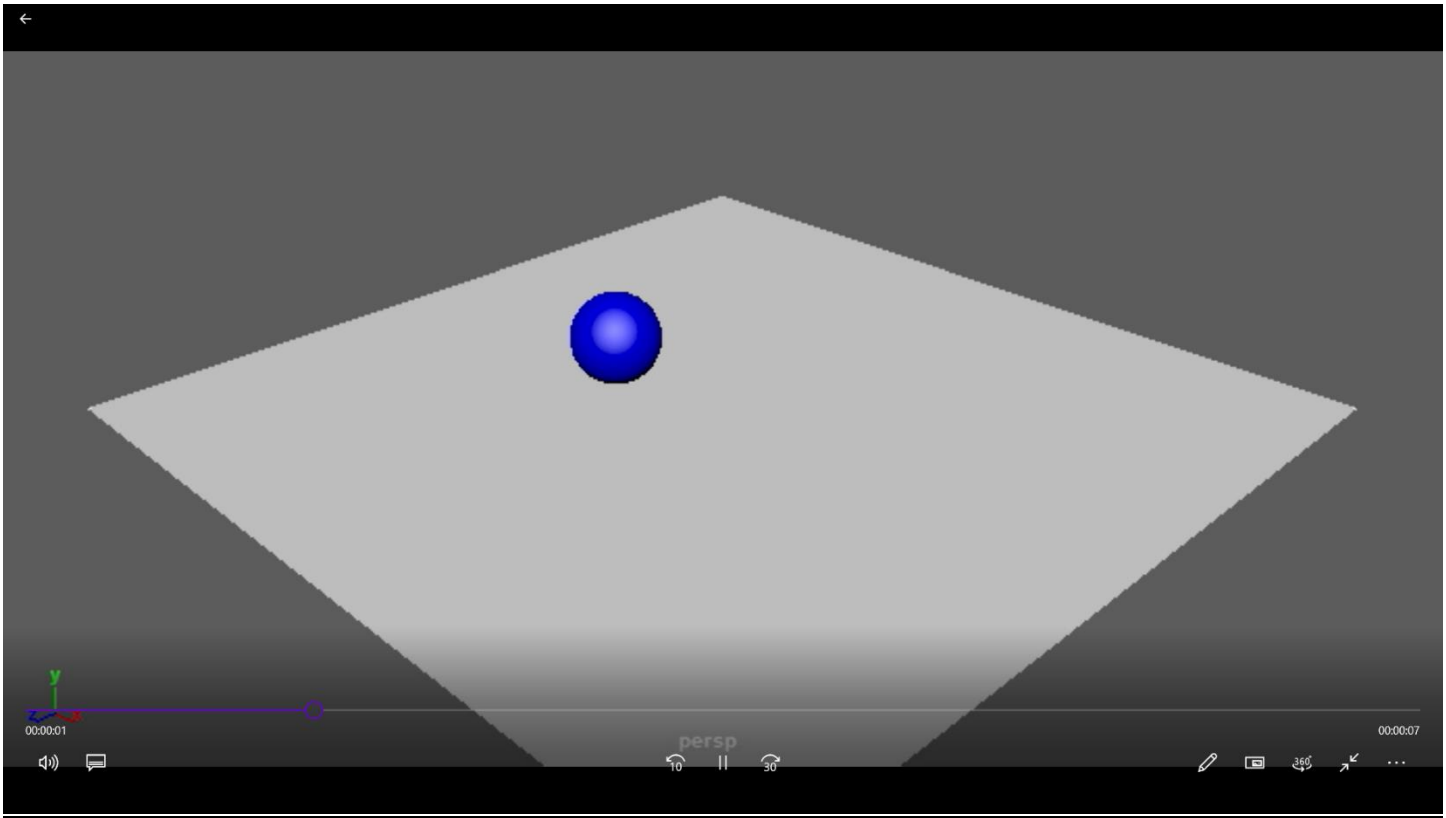
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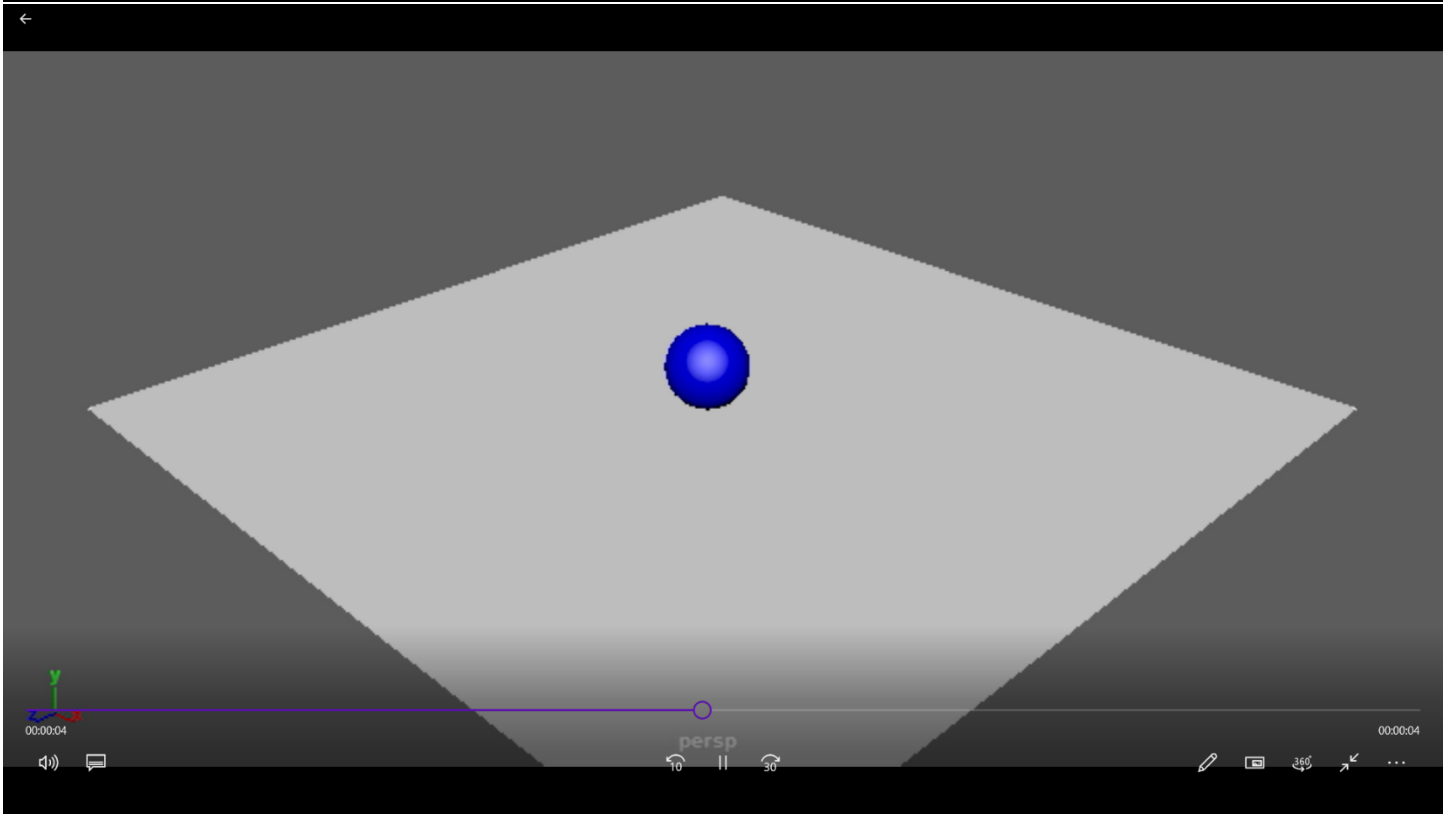
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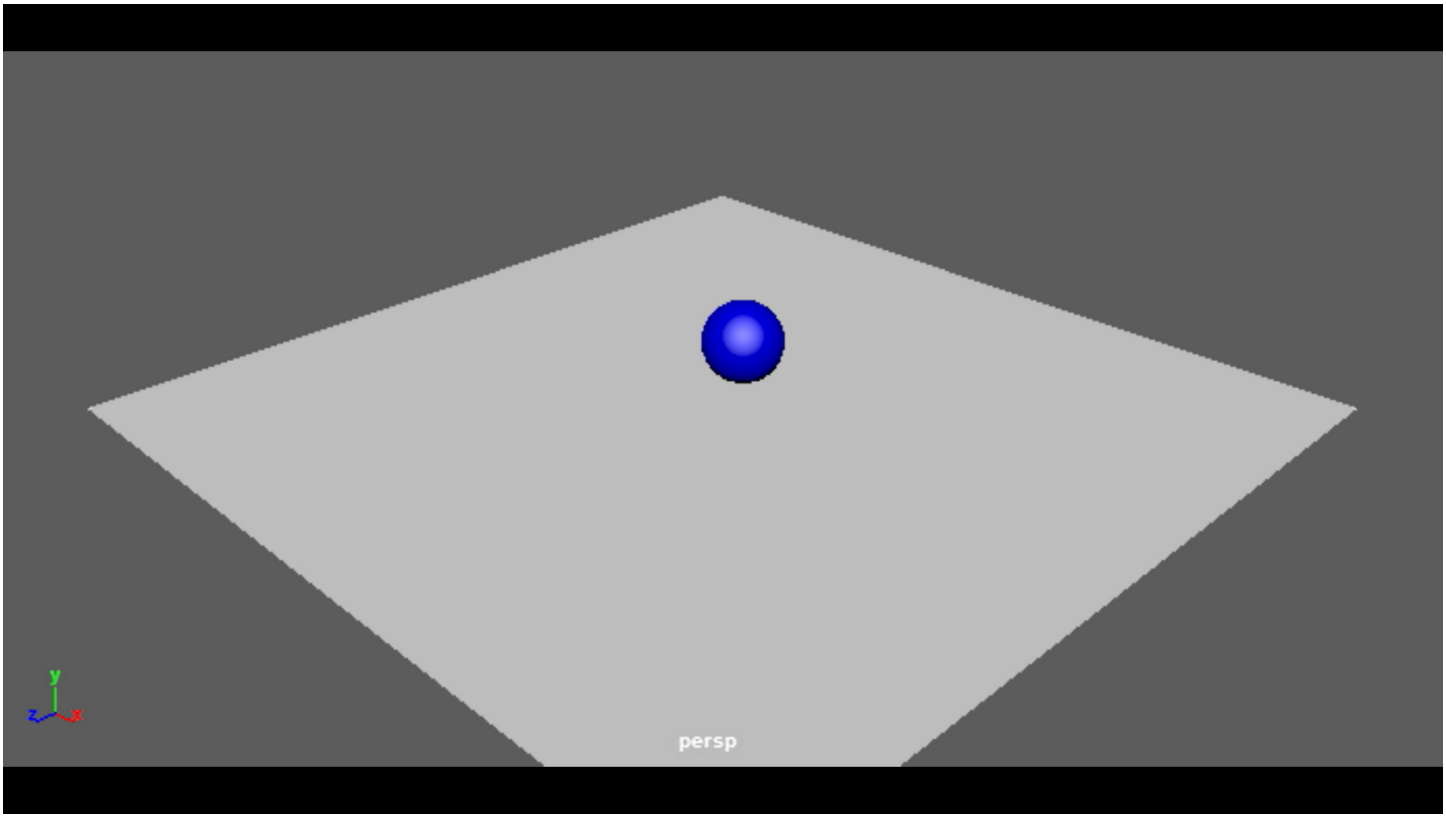
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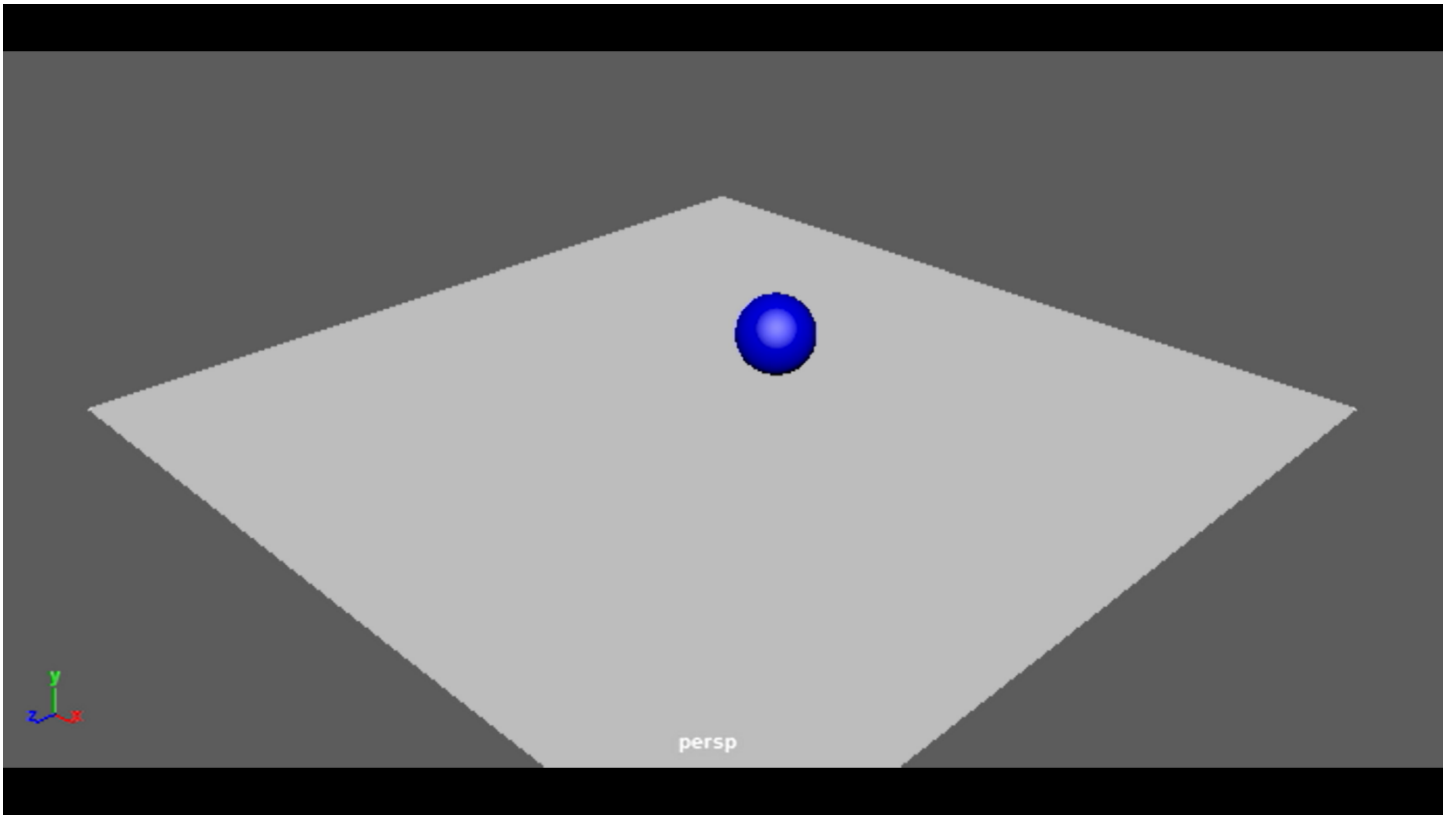
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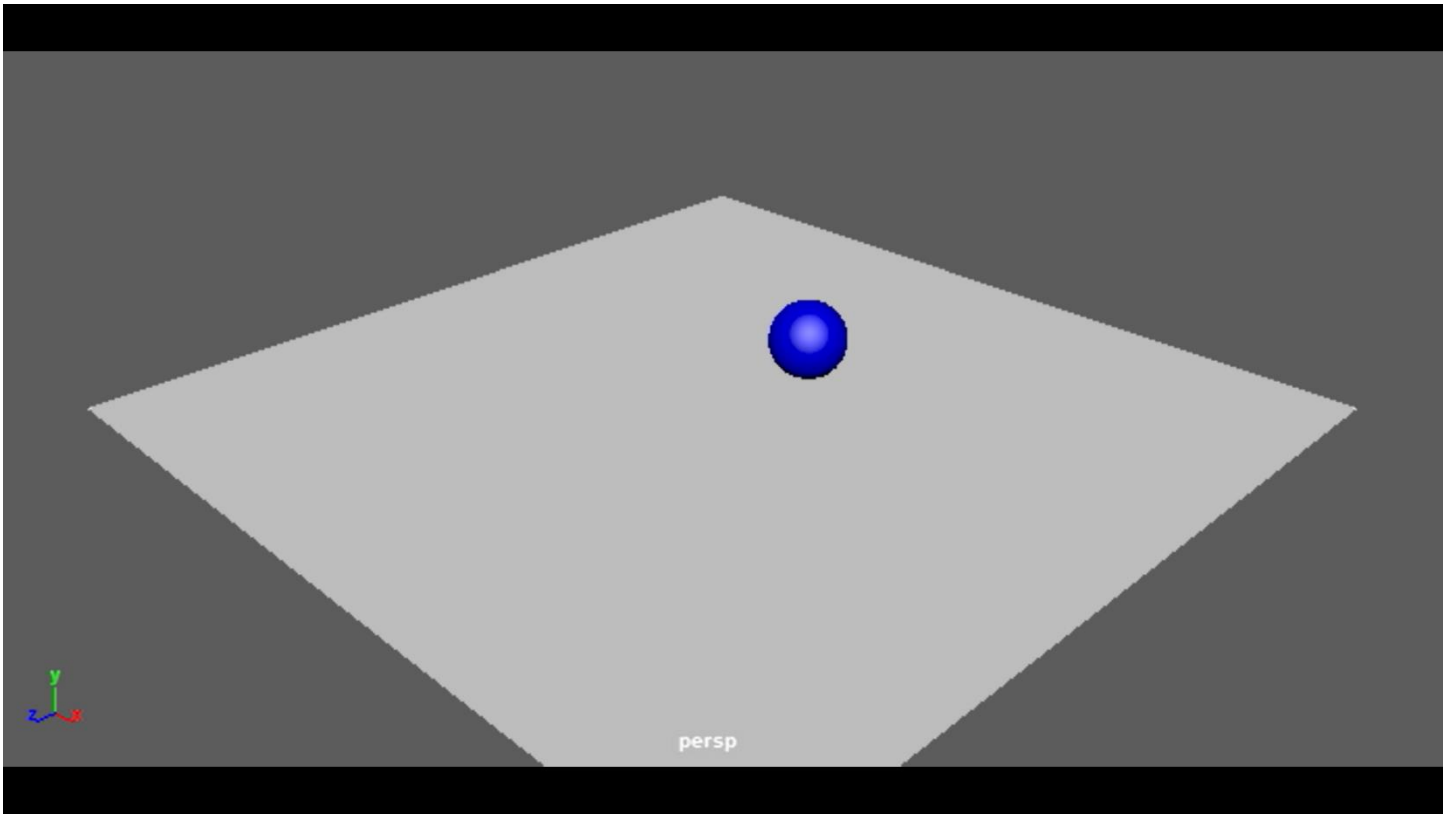
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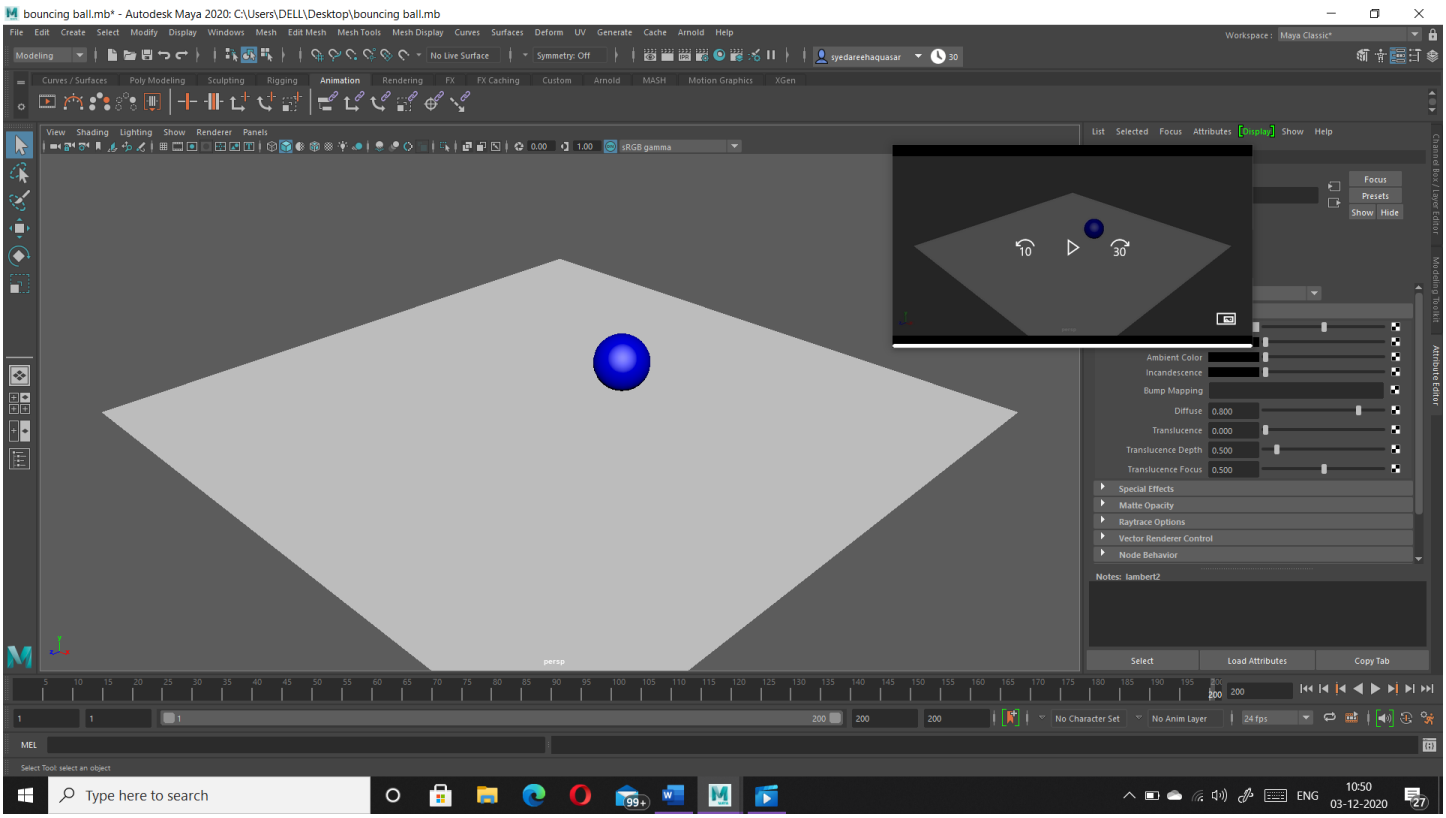
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VIVA-VOCE QUESTIONS

Q1. Short films that use stop motion techniques are what type animation?

a) Frame-based animation

b) HTML

c) Animation

d) Production

Ans.

a) Frame-based animation

Q2. _____ is the sequence of images displayed one after the other in a given time frame.

a) Translation

b) Animation

c) Ordering

d) Shearing

Ans.

C) Ordering

Q3 In which tab of properties window, frames per second, start time and end time is specified?

a) Image

b) Time

c) Duration

d) Animating

Ans.

b) Time

Q4. A video consists of a sequence of

a) Signals

b) Frames

c) Packets

d) Slots

Ans.

b) Frames

Q5. A _____ is a frame in which a changes to an object's properties are defined.

a) Multiframe

b) single frame

c) keyframe

d) userframe

Ans.

c) KeyFrame