Aim:

To create an animation of a bouncing ball in Blender by applying the Bounce keyframe interpolation mode, allowing the ball to move realistically without manually setting multiple bounce keyframes.

Procedure:

1. Scene Setup

1. Open **Blender**.
2. Delete the default cube.
3. Add a **UV Sphere** (`Shift + A → Mesh → UV Sphere`) to represent the ball.
4. Add a **Plane** (`Shift + A → Mesh → Plane`) beneath the sphere to act as the ground.
5. Position the sphere above the plane.

2. Inserting Keyframes

6. Go to **Frame 1** in the timeline.
7. With the sphere selected, insert a **Location keyframe** (`I → Location`).
8. Go to **Frame 20**.
9. Move the sphere down so it touches the plane.
10. Insert another **Location keyframe** (`I → Location`).

3. Applying Bounce Interpolation

11. Open the **Graph Editor**.
12. Select the sphere's **Z-Location curve** (vertical movement).
13. Select both keyframes.
14. Press **T** (Set Keyframe Interpolation).
15. From the list, choose **Bounce**.
16. Blender automatically generates bouncing motion after the second keyframe.

4. Refining the Animation

17. Adjust the spacing between keyframes (e.g., move the second keyframe from Frame 20 to Frame 30) to change bounce speed.
18. Raise the starting position of the ball (Frame 1) to increase the initial bounce height.
19. Play the animation (`Spacebar`) to preview the bouncing effect.