AIM : To create a professional-quality movie clip using Blender, an open-source video editing software.

PROCEDURE:

1. Install and Open Blender

- Download Blender from blender.org and install.
- Open Blender → by default, you'll see the **3D Viewport**.

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2. Set Up Your Project

- Go to **Properties → Output Properties (printer icon)**.
- Choose resolution (e.g., 1920×1080), frame rate (24/30 fps).
- Set start & end frames (e.g., 1–250 frames).

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3. Create or Import Objects

- Use Blender's tools to **add 3D objects**:
    - o Press **Shift + A → Mesh → Cube, Sphere, etc.**
- Or import models (FBX, OBJ, etc.) if you already have assets.

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4. Design the Scene

- Position objects in the 3D space.
- Add **materials, textures, and lighting**.
- Place a **camera** (Shift + A → Camera → position using "Numpad 0" to view through it).

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5. Animate the Objects

- Select an object → move to a frame on the timeline.

- Press **I** (Insert Keyframe) → choose **Location/Rotation/Scale**.
- Move to another frame → change position/rotation → insert another keyframe.
- Blender will **animate between frames** (interpolation).

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6. Add Audio (Optional)

- Switch to **Video Sequencer** or Timeline → add sound files.
- Sync audio with animation if needed.

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7. Preview the Animation

- Press **Spacebar** to play the timeline.
- Use **Viewport Shading** → **Rendered mode** to preview how it looks.

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8. Render the Movie Clip

- Go to **Properties → Output Properties → File Format → FFmpeg Video (MP4)**.
- Choose output folder and name.
- Press **Render → Render Animation (Ctrl + F12)**.
- Blender will render frames and save them as a **movie clip**.

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9. Save Your Project

- Save your Blender file (**File → Save As → .blend**) for future editing.
- Your rendered movie clip (MP4) will be in the output folder.