**Creating a game component using Blender**

1. **Download & Install** Blender from Blender.org.
2. **Open Blender** and delete the default cube (X → Delete).
3. **Switch to the Right Workspace**: Click **"Modeling"** at the top.
4. Create the Blade

* Press Shift + A → **Mesh** → Add **Cube**.
* Scale it along thxe **Z-axis** (S → Z → 4).
* Enter **Edit Mode** (Tab), switch to **Face Selection Mode** (3).
* Select the top face → Press S to scale it **narrower** to form a sharp tip.
* Select the front edges → Press Ctrl + B to **bevel** for a sharper edge.

1. Create the Handle

* Press Shift + A → **Mesh** → Add **Cylinder**.
* Scale it down (S → 0.2) and move it down (G → Z → -3).
* Adjust the cylinder’s height to fit your design.
* Go to **Modifier Tab** → Add **Subdivision Surface** for smoothness.

1. Create the Guard

 Press Shift + A → **Mesh** → Add **Cube**.

 Scale it (S → X → 2 and S → Y → 0.3).

 Move it up so it sits between the blade and handle (G → Z).

 Add a **Bevel Modifier** (Ctrl + B) for smoother edges.

1. UV Unwrap & Texture

* **Go to UV Editing Tab**.
* Select the entire sword in **Edit Mode** (A).
* Press U → Choose **Smart UV Project** (for easy texturing).
* Go to **Shading Tab** → Add a **New Material** (Material Properties → **New**).
* Add a texture:
  1. Click **Base Color** → Choose **Image Texture**.
  2. Load a metal texture (download from [textures.com](https://www.textures.com) or [Poly Haven](https://polyhaven.com)).
  3. Adjust **Metallic** and **Roughness** sliders in the **Shader Editor**.

1. Add Lighting & Effects (Optional)

* **Add a Light Source** (Shift + A → Light → Sun).
* Adjust intensity in **Light Properties**.
* Enable **Eevee or Cycles Renderer** for realistic reflections.

1. Export for Game Engine

* Apply **Transformations** (Ctrl + A → Apply **Location, Rotation, Scale**).
* **Export as FBX**
  + Go to **File** → **Export** → **FBX** (for Unity).
  + Select **Mesh Only** and enable **Selected Objects**.
  + Set scale to 1.0 to avoid size mismatches.
* Import into your game engine:
  + **Unity**: Drag the FBX file into the **Assets Folder**.

