|  |  |  |
| --- | --- | --- |
| Softwares | Backend Technology | Reviews |
| SketchUp:  SketchUp is an intuitive 3D modeling application that lets you create and edit 2D and 3D models with a patented “Push and Pull” method. The Push and Pull tool allows designers to extrude any flat surface into 3D shapes. All you have to do is click an object and then start pulling it until you like what you see.  **How to Use:**  Insert image and then trace all the rooms in image by pencil tool then use “Push and Pull” tool to extrude into 3d shape. When all walls built you can add any component(doors, windows etc) into 3D model. | Written in C++ & Objective-C. Open GL is used as a display layer. | Tracing the image is hard part. It needs practice. Another thing is doors in 2d floor plan can’t convert into 3d. Only walls can extrude into 3d. After that user can add components like doors, windows after adjusting and resizing into 3d model. |
| SweetHome3d:  Sweet Home 3D is a free architectural design software application that helps users create a 2D plan of a house, with a 3D preview, and decorate exterior and interior view including ability to place furniture and home appliance. In Sweet Home 3D, furniture can be imported and arranged to create a virtual environment. | Written in Java. Java3D is used for graphics.  Java 3D is a scene graph-based 3D API for the Java platform. It runs on top of either OpenGL or Direct3D until version 1.6.0, which runs on top of Java OpenGL. | Easy to use. Just drag 2d components and draw 2d floor plan. As we draw 2d floor plan, 3d model generated at same time. |
| Blender:  Blender is a free and open-source 3D computer graphics software toolset used for creating animated films, visual effects, art, 3D printed models, interactive 3D applications and video games. | Written in C, game engine is mostly C++ and there is tiny bit of Python for API and included scripts.  It uses [OpenGL](https://en.wikipedia.org/wiki/OpenGL), a cross-platform graphics layer, to communicate with graphics hardware. | A large platform for so many things. Overall this software is very hard to use. Only technical person with some practice can use it. A lot of Manual works required |
| Room Planner Software  Java 2 application for positioning of furniture in the room with 3d preview. 3d preview is static or dynamic - user can walk across the assembled room and view it in real time. Room planner allows you to pick styles and play around with colors, textures and finishes. | Java, Java3d, XML, VRML | Easy to use and implement. Automatically generates a sketch of 3D but we have to choose different texture according to our own desire which looks good. Use drag and drop functionality to adjust furniture and different texture in the room. |
| Free CAD Software  Accessible, flexible & integrated. **Free CAD** is a multi platform (Windows, Mac and Linux), highly customizable and extensible software. It reads and writes to many open file formats such as STEP, IGES, STL, SVG, DXF, OBJ, IFC, DAE and many others, making it possible to seamlessly integrate it into your workflow. | Its open Inventor-compliant 3D scene representation model provided by the Coin 3D library, and a broad Python API.  The interface is built with Qt | We can make 3 D drawing through this software at different angles of projection. Manual work required. |
|  |  |  |
|  |  |  |