

SpacePlannerAPP

Generate Room Plans with AI



Meet Our Best Team



Usama Dar



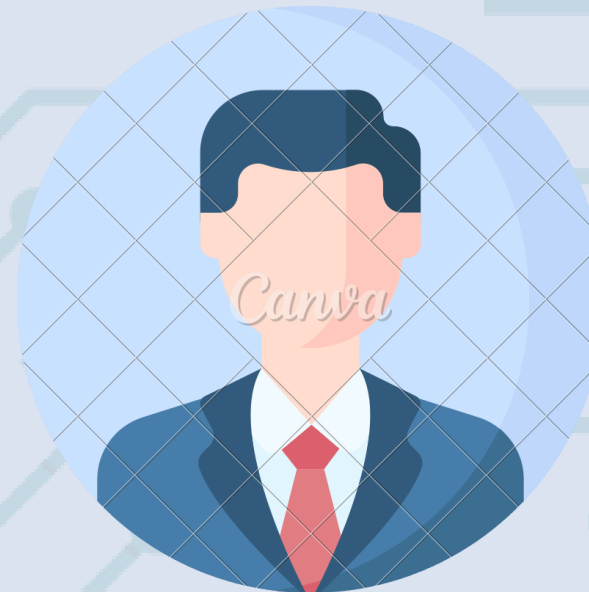
Dr Usman Akmal



Azhan Khan



**Fatima Sohail
Shaukat**



Usama Nawaz

Problem statement

Designing a room layout can be time-consuming and requires a high level of expertise.

Professionals like architects and interior designers often need quick and customizable solutions for generating room plans





Solution

Introducing The SpacePlanner

- The Space Planner App offers a simple, AI-powered tool that allows users to generate detailed room plans based on specific prompts, via an intuitive interface.
- This solution caters to both professionals and homeowners who want to visualize and customize room layouts effortlessly.

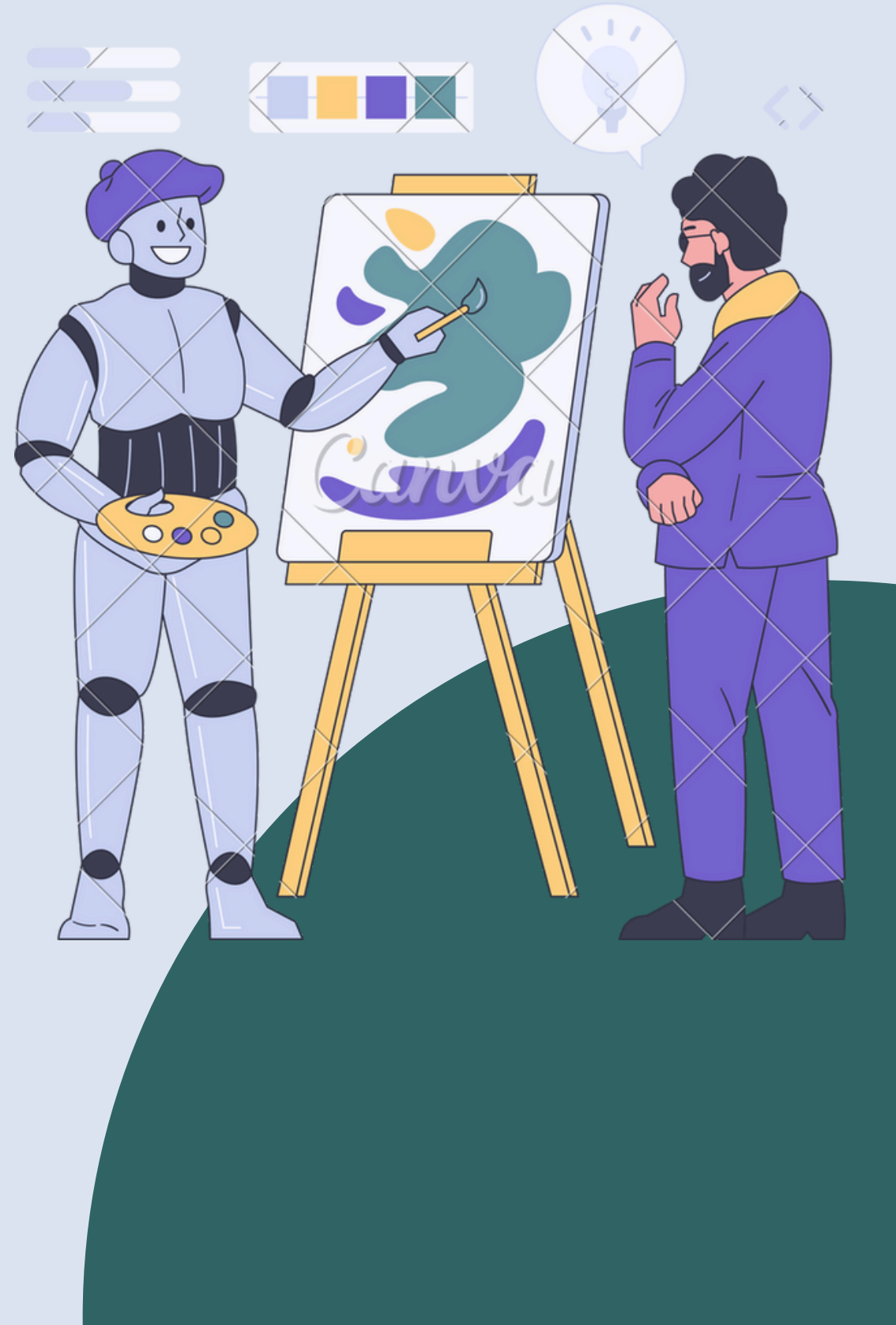
SpacePlanner Benefits

1) Customization

Users can tailor room plans to their exact needs, whether for professional projects or personal use.

2) Real time results

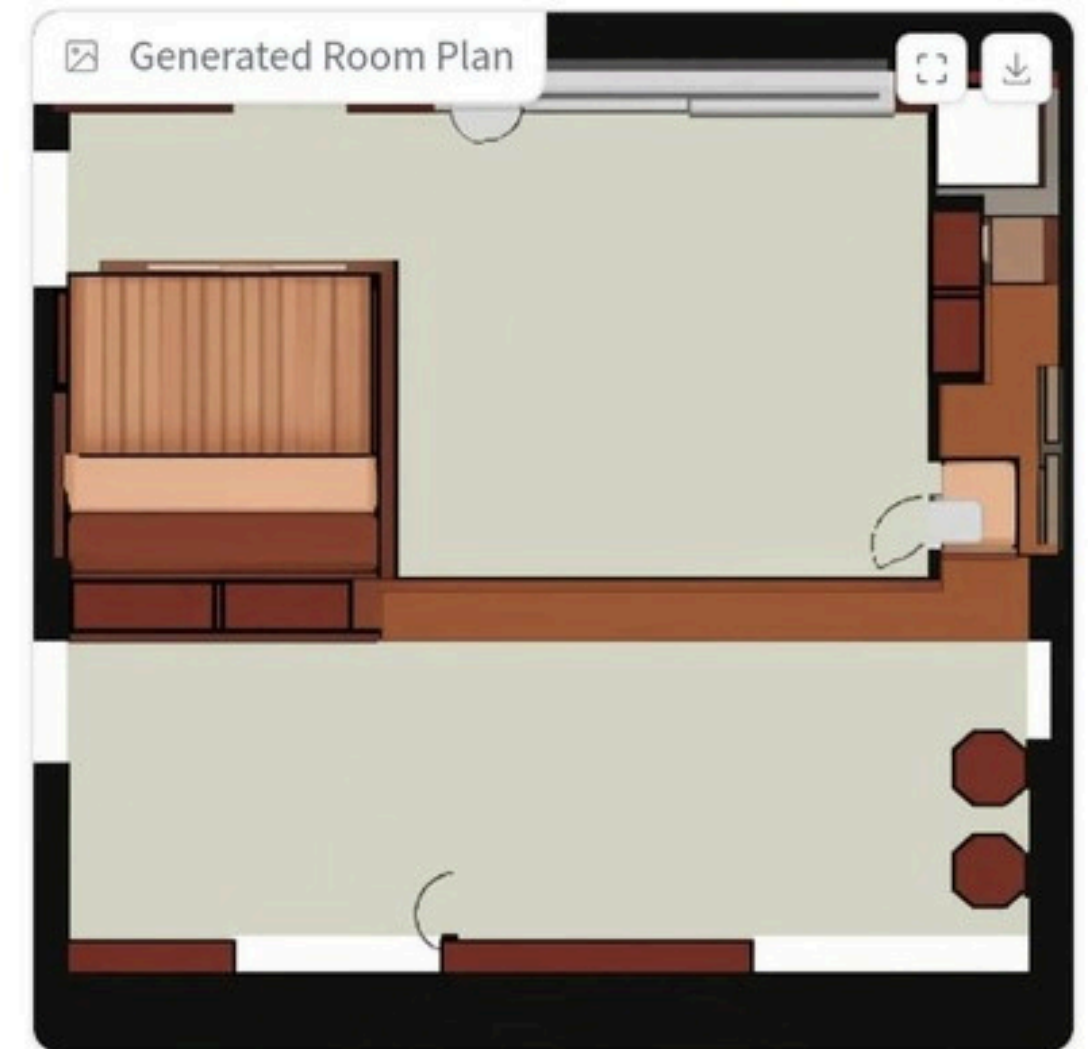
The AI model generates room plans almost instantly, providing immediate feedback and allowing for quick iterations.



Room Plan Generator

Enter your prompt

12x15 feet room with furniture layout
having king size bed



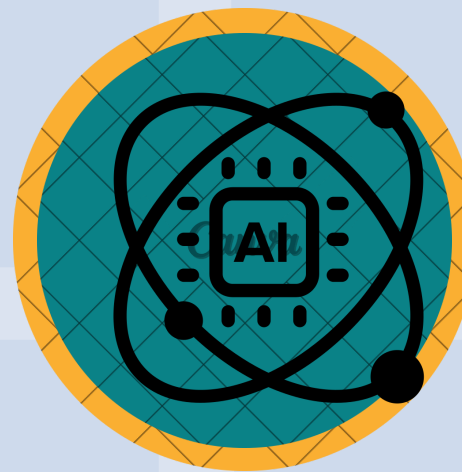
Generate Room Plan

SpacePlanner Unique Approach



User Inputs

Users can input specific prompts detailing the room dimensions, layout, and style.



AI-Generated Plans:

The app processes these prompts using a pre-trained AI model to generate a detailed room plan.



User Friendly Interface

The app is designed with an intuitive interface using Gradio, making it accessible for all user levels.

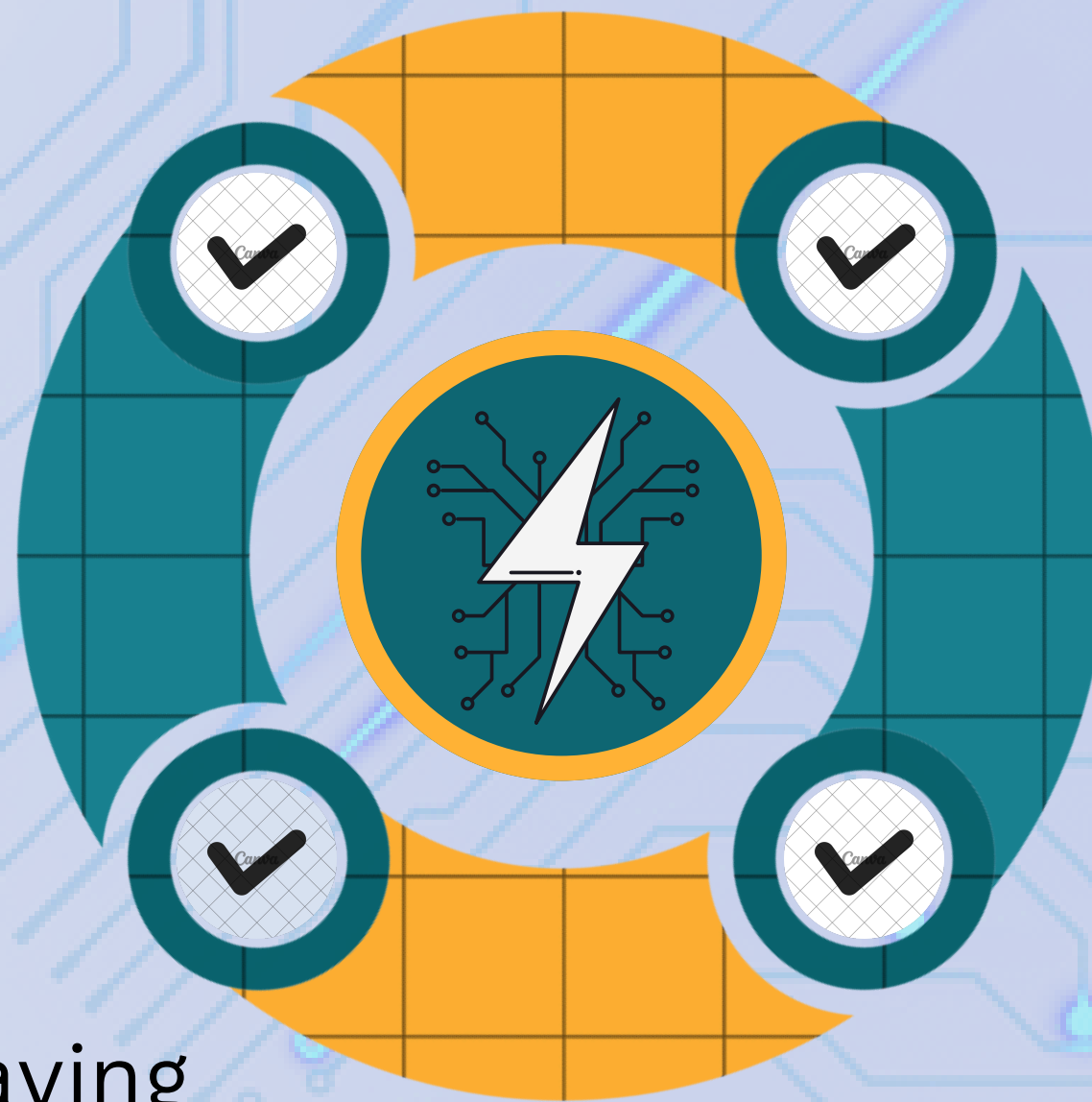
Powered by Stable Diffusion Model

Python

For the backend logic
and API integration.

PIL (Python Imaging Library)

Used for handling and displaying
generated images.



Hugging Face API

Handles text, image,
and PDF inputs
seamlessly.

Gradio

For the user interface,
allowing for seamless
interaction.

Target Audience



Home Owners

Home Owners who are finding difficulty finding good designers around them, but wants a professional design for their House



Design Professionals

Arch and Interior Designers who want a starting point for their project, which they can later specialize as per specific business needs



Construction Companies/Contractors

Those construction companies or contractors who want to save cost for designing layout of the space



Future Work



Full Floor Plans

Expand the app to generate entire floor plans, not just individual rooms



Advanced Design Features

Incorporate more complex design options like furniture placement, wall textures, and color schemes.



3D Visualization

Develop a feature to view the room plans in 3D for a more immersive experience.

In this example we demonstrate SpacePlanner Assistance in Code:

Thank You

F o r Y o u r A t t e n t i o n

