**SYNOPSIS OF THE PROJECT**

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| Student Name | Aravind M A |
| Class | 2021 MCA- A |
| Roll Number | 36 |
| Project Topic | Art generation using Stable Diffusion |
| Date of Submission | 25-1-2023 |
| Abstract:  In a creative industry, creating a new piece of art can be tiresome. One may require inspiration to create new pieces, this is time consuming. Stable Diffusion allows user to turn sentences into art pieces. Stable Diffusion Stable Diffusion is a deep learning, text-to-image model released in 2022.  It is a latent diffusion model, a variety of deep generative neural network developed by the CompVis group at LMU Munich. It is primarily used to generate detailed images conditioned on text descriptions, though it can also be applied to other tasks such as inpainting, outpainting, and generating image-to-image translations guided by a text prompt.  The text to image sampling script within Stable Diffusion, known as "txt2img", consumes a text prompt in addition to assorted option parameters covering sampling types, output image dimensions, and seed values. The script outputs an image file based on the model's interpretation of the prompt. | |
| Back end | Python, Prompt builder |
| Front end | Stable diffusion UI(NMKD) |