## The experiment of the baseline model

## **Testing StyleGAN against the dataset**

StyleGAN+ CLIP text encoder

**Configurations:** 

Steps = 40, seed =-1, optimizer = Adam, learning rate = 0.3

Caption	Dataset image	Generated image	
A plate with eggs, sausage, tomato and other meats.			
A herd of zebra standing next to each other.			
A box filled with some bacon topped donuts.			

A woman wearing sunglasses with a yellow oriental parasol opened over her head A man riding a skateboard up the side of a ramp A beach area with boats and people walking about it A man swinging a tennis racquet on a tennis court

a woman riding a little pink motorcycle by a car		
a women combing her young daughters hair		
A man preparing to throw a frisbee while another man attempts to block him		
a man with a baseball bat in field		

a girl is next a flower garden on her phone	
an airplain sites outside the airport next to trucks	
snowboarders strike a pose with a variety of boards	

several diners are seated at a restaurant table		
A white bathroom has a striped shower curtain		

A group of people on a grass field together playing a game with a frisbee		
A baseball player running on a field during a game		

A home computer and coffee mug on a desk





Female tennis player swinging racket for a high ball





## **Evaluation using the following measures:**

- 1-IS score which indicates the quality of images generated by the model. It measures two essential traits: diversity and distinctiveness.
- 2-FID score which indicates the similarity between two sets of images. A lower FID score indicates that the distributions of features extracted from the real and generated images are closer, suggesting better similarity between the two sets of images.

MS-COCO (20)		
	IS	FID
StyleGAN-XL model	0.00011784392700064927	384.1173296048412

SDXL diffusion model	