# Concept:

We decided to create an interactive game in Max using various objects and patches. The game we are thinking to implement is “Flappy Bird”. In the game the users will be able to interact with the bird to move or position the bird in-order for it to avoid the obstacles and move forward. And if the bird gets in contact with an object or if the bird falls down then the game is over and should restart. The users will be able to see the highest score and can try to cross their previously reached threshold and keep themselves competitive.

The game will be implemented in the visual programming tool called Max and it can also be used in different environments as long as it has Max setup.

**Concept Sketch**:

A drawing of a house

Description automatically generated with low confidence

Concept Sketch for the game "Flappy Bird"

The above is a rough conceptual sketch of how our game is going to be implemented.

The components that we will be implementing for the game are as follows:

1. Background Image: A static Background Image to display the game environment.
2. Bird Sprite: A sprite that represents the player-controlled bird.
3. Pipe Sprite: A sprite that represents the pipes that the bird must navigate through.
4. Score Counter: A counter that keeps track of the Players/Users score.

And other in-game mechanics like,

1. Ground Sprite: A sprite that represents the ground where the bird is flying over.
2. Collision Detection: A function that detects when the bird collides with a pipe or the ground.
3. Gravity and jump mechanics: A system that simulates the effects of gravity and allows the Players/Users to control the bird's upward movement by tapping a key.
4. Sound effects: Sound effects for when the bird jumps, hits a pipe, or passes through a pipe.
5. Audio Input: Audio input for when the audio is played by the player/user for the bird to move.

# Technologies:

Software: We will be using the visual programming language called Max8, we will the libraries like

Hardware: Laptops with Max8 installed.

# Background Research: