

## Proposal for Jump and Run game

So basically, my Idea is to make a Jump and Run game which is oriented on the gameplay of flappy bird, a game developed by Dong Nguyen, which is capable of the following aspects:

- Showing a starting screen.
- Creating players
- Showing the basic level in which, the game is running containing background, ground, player figure, score and obstacles.
- The Player can jump a fixed height when a key is pressed.
- Otherwise, gravity is bringing the player down.
- From right to left there are incoming obstacles which have a gap in between, which the player must jump through.
- These obstacles are randomly generated and vary in height.
- When the player gets through these gaps the score of the game updates by one.
- Otherwise, when the player touches the obstacles or the ground he will die and the game repeats.
- After each game the score is stored with the users name
- The game will have a **database** which can be accessed and shows the statistics of each gamerun for each player

The Python module **pygame** will be used for this parts.

Optionally for such a game it would be also possible to integrate an AI with the python module NEAT or with some q learning.

But I cannot foresee the amount of work in that so I took that as an optional part.