

# Donkey Kong

Donkey Kong is a famous computer game with a graphic interface.

During the game, the player controls Mario using arrow keys and enter key (jump). The goal is to get to princess Peach. To win the game, the player moves on platforms and can climb ladders. Also, he needs to avoid barrels that Kong throws at him, by either jumping over them or avoiding them while waiting on a ladder. Game ends by either winning, or losing – running into a barrel or falling out of screen.

## Code documentation:

After starting the game, we enter main menu (MenuPanel class), where the first three usernames and high scores are displayed. They are saved in a simple .txt file. The user can either reset the high score table to default or play the game.

## Classes:

*DonkeyKong* – contains main function that creates MainMenu

*MainMenu* – frame that contains MenuPanel

*MenuPanel* – contains all elements in the main menu, as well as code for working with the high score table and input controller for working with the input from the keyboard

*GameModel* – implements Observable and contains the logic of the game – what happens in one tick

*GameFrame* – frame that contains GamePanel and makes sure the window isn't closed by a mistake, is created when the player pressed Play in the main menu

*GamePanel* – panel of GameFrame, is being repainted every tick, overrides paintComponent method

*StaticObject* – any object, has parameters so we know of the x and y coordinate of the object and its width and height

*MovingObject* – inherits from StaticObject, added parameters for movement and gravity (to know how to fall from platforms – or in case of mario, during the jump), added functions for checking collisions

*Ladder, Peach, Platform* – static objects that inherit from StaticObject

*Mario* – the player, reads input from the keyboard to know where he can move at the moment, checks collisions with barrels, peach, ladder and whether he's standing on a platform during every move

*Barrel* – a moving object inheriting from MovingObject, has pointAwarded boolean to say whether or not mario has jumped over the barrel