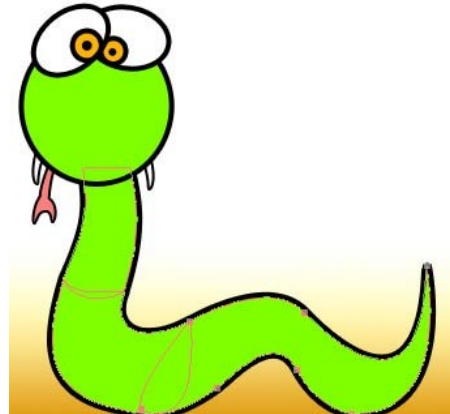




## *Project Report*



### Main Report

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# Main Report

“Snake” is an extremely popular, addictive game .This version has been named as isnake as a tribute To the late Steve jobs. This version is a variant from the normal version where one has to use the arrow keys to control the snake. In this version the user has to use the mouse to control the snake.Watch out for fruits and bonus fruits.

SO ENJOY...HAPPY PLAYING!!!

## Program In Brief ...

The main window is divided into  $20 \times 20$  cells. Each cell contains a value 1,2,3 or 0 depending upon whether the cell is occupied by a maze rock, bonusfruit, fruit or none of them.

A char variable **direc** stores the direction of movement of the snake(R,L,U,D). A SetMouseClickedCallback function(**turn()**) is set up which changes **direc** according to the position of the mouseclick w.r.t. the snake.

As the snake moves, a check function (**check()**) checks whether the snake has eaten a fruit or a bonusfruit or has crossed itself or has hit the maze block.

Accordingly functions are called.

A random function(**plotfruit()**) generates a random cell in the window until the cell doesn't clash with any of the snake 's block or the maze. Fruits or bonusfruits are then displayed there.

We also have the highscore maintaining mechanism for people skilled enough to make it into the top 3!!!.

The five mazes with increasing difficulty make the game even more interesting and challenging!! U need to have 10 fruits for passing each level!!

#### ➤ VARIABLES USED

**snake** : represents the snake

**HS** : stores the highscores

map : represents the map, stores info about the maze, fruits etc;

lives : represents the lives remaining for the snake

level : represents the current level in the game

length : represents the length of the snake

direc : represents the direction of the snake

score : represents the current score in the game

levelscore : represents the score in the current level

xfruit : represents the x coordinate of the fruit

yfruit : represents the y coordinate of the fruit

xbonusfruit : represents the x coordinate of the bonus fruit

ybonusfruit : represents the y coordinate of the bonus fruit

lengthinc : used to represent if snake has eaten the fruit

bonusfruitpresence : used to specify presence of bonus fruit

countr : variable used to blink the bonus fruit

n,r,c : variables used to display the  
highscores

➤ ***FUNCTIONS USED***

HSload : loads the highscores onto the HS array

loadmenu: loads the bitmap in the menu window

mainmenu : handles the mouse clicks on the main menu

mainmenuclick : handles the mouse click in the main menu

HSdisplay : displays the highscores

loadinstructions : displays the instructions

exitmenu : used to quit the game

exitwindowclick : handles the mouse click in the exit menu

loadgame : loads the bitmaps

playgame : start the game

load : prepares the level

loadmap : loads the map coordinates

plotfruit : plots the fruits randomly

genrandom : generates random numbers

endgame : end the game

checkscore : checks if the score is a highscore

gameoverclick : handles the mouse click in the gameover window

turn : loads the appropriate head bitmap

gamewindowclick : handles the mouse click in the game window

move : moves the snake

check : checks the validity of each move

plotbonusfruit : plots the bonus fruit randomly

timerclick : get called repeatedly after a time interval

handleBonusFruit : handles the bonus fruit

hsclick : handles the mouse click in the hs window

highsclick : handles the mouse click in the highs window

instruclick : handles the mouse click in the instruc window

drawnumber : function to display the highscores

## Future Ideas...

- Use the keyboard (arrow keys) instead of mouse to control the snake.
- Improved Graphics (maze, snake, fruits), better user interface.

- Involving fruits that moves so that snake should chase it and catch it.

**Status of completion...(?!)**

**Completed and working properly.....**