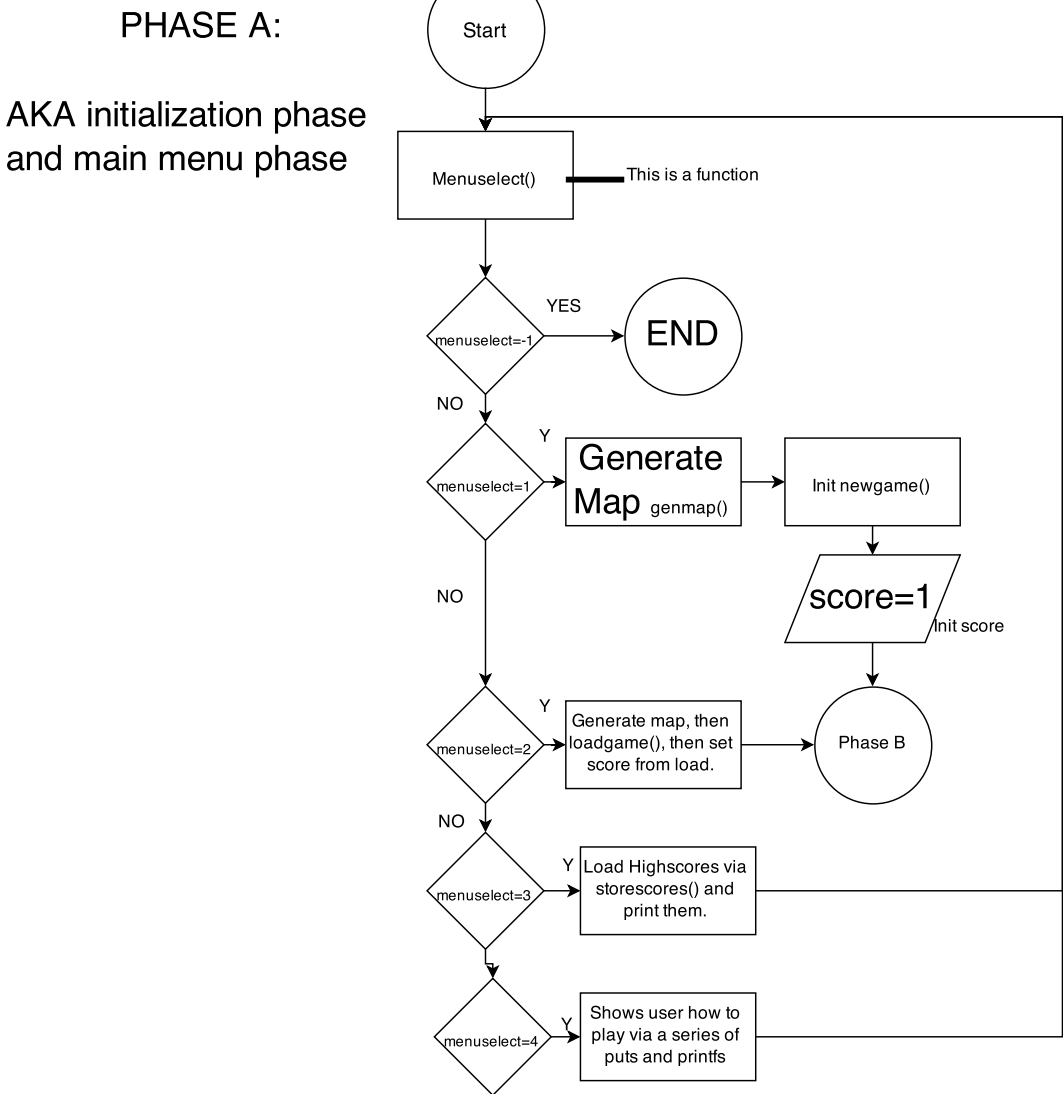
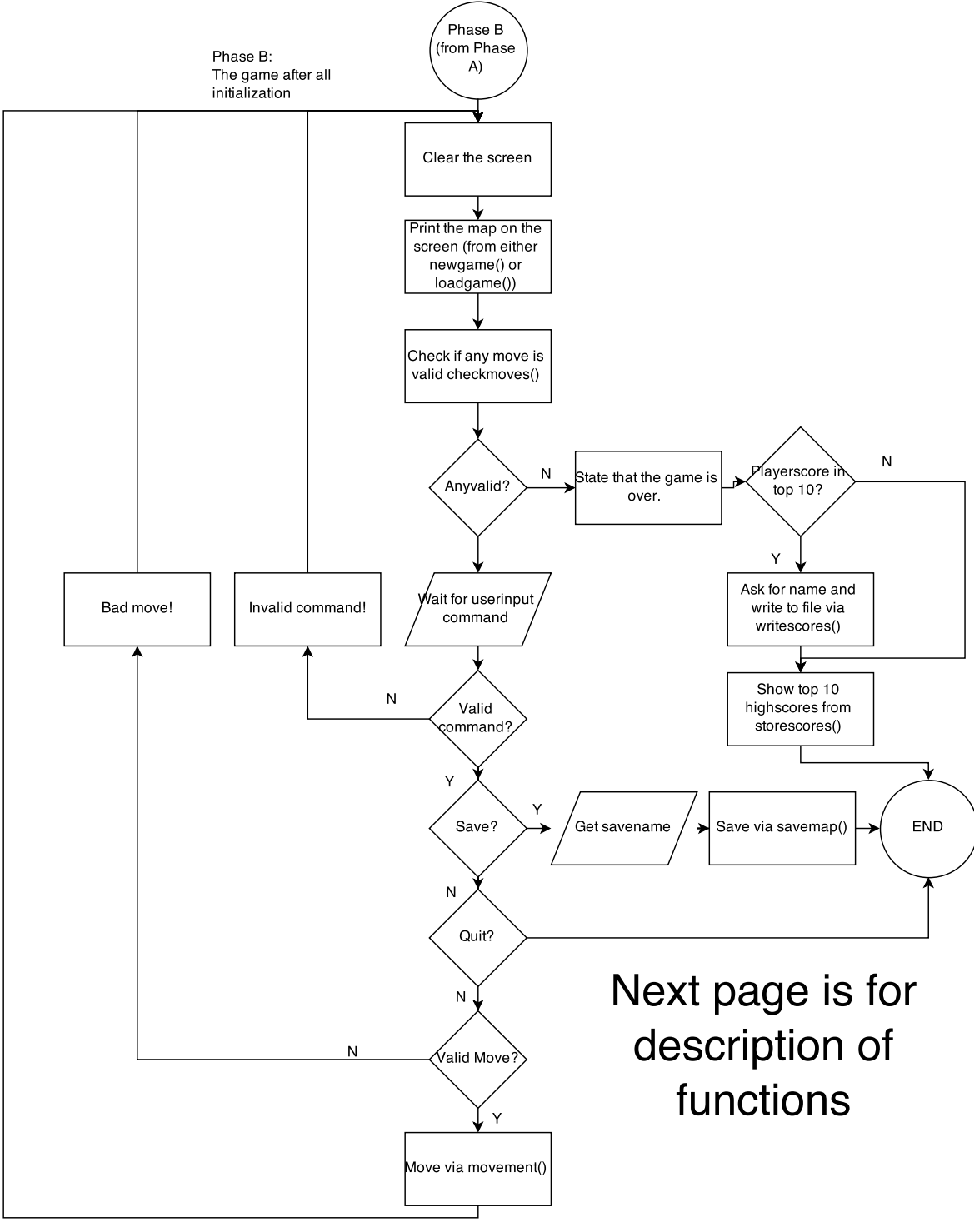


Main Function Flowchart



NEXT PAGE FOR PHASE B AKA THE GAME ITSELF



Next page is for
description of
functions

List of
Functions

int menuselect()

This function gets an input from the user, which corresponds to a specific gamemode. returns -1 for quit, 1 for ng, 2 for lg, 3 for high scores, 4 for instructions. Loops back if invalid input.

void genmap(char map[22][53])

This function generates a blank 53x22 map of characters as a playing field. 2 extra spaces in 22 are for blank spaces(or borders). Same goes for 2 spaces in 53. another extra space in 53 map[52] is for the null terminator of the string.

void newgame(char map[][], int *xposition, int *yposition)

This function gets the blank map from genmap, and fills it with random numbers, leaving the first and last spaces for each row and column blank as a border. Afterward, it places an @ sign at a random position, and stores the x-coordinate and y-coord

-inate in the adresses pointed by xpos and ypos.

int movement(char map[][],int *xpos, int *ypos, char command)

this function moves the @ across the map, turning any crossed tiles into blank spaces. It then saves the @'s xpos and ypos in the addresses pointed by *xpos and *ypos. It then returns the value to be added to the score. This value to be added depends on the number of tiles crossed.

int checkmoves(char map[][], int *xpos, int *ypos)

This function checks (aka moves the @ without actually moving its position) all possible movement options to see if there are any valid options left. If none, return 1, else return 0.)

void storescores(struct hiscore list[], FILE *fp)

this function opens a file pointed by fp, and stores all the high scores in a struct hiscore, which contains string name and int score. It then checks if the player's score is within top 10. It rearranges all the highscores with the player's score (11 scores in total).

void writescores(struct hiscore list[], file *fp, int nameloc)

this function rewrites the top 10 high scores from list into the file. If it finds player's score in list[nameloc], it will ask for a name from player.

void showscores(struct hiscore list[])

This function shows the top 10 scores.

void savemap(char map[][], int currentscore, int *xpos, int *ypos)

This function saves the map in char map, along with the current score, and @'s x and y position in a text file named by the user. The text file may have any extension, as long as it is possible to find it with the loadgame function.

void loadgame(char map[][], int currentscore, int *xpos, int *ypos)

This function loads the map from a specified text file, and saves the corresponding values into the corresponding variables. If invalid file, restart loop. If q is inputted, quits the game.

