Projecte debugging

PROJECTES DE PROGRAMACIÓ

ALEX ALMANSA

Index

Reports

Bug report 1

ID	#1	Status	Solved	Severity	Critical
Description	Program crashed with segmentation fault				
Steps to reproduce	Just run the program				
Expected result	Be able to run the program				
Actual result	Segmentation fault				
Solution	In main.c put a double = in line 15 if (f = NULL) {				

Bug report 2

ID	#2	Status	Solved	Severity	Critical
Description	Options were all out of range				
Steps to reproduce	Run the program and enter any option				
Expected result	Be able to enter the options				
Actual result	All options out of range				
Solution	In menu.c iscorrect				

Bug report 3

ID	#3	Status	Solved	Severity	Major
Description	Program wasn't ordering correctly because an assignation was done in the insert function of the list.c module.				
Steps to reproduce	Just run the program.				
Expected result	A list ordered correctly				
Actual result	The list not being ordered				
Solution	In the list.c module, in the insert function, in line 51, change the = for ==				

Bug report 4

ID	#4	Status	Solved	Severity	Critical
Description	The program crashes with core dumped when tries to mesure distance from the destination to Barcelona.				
Steps to reproduce	Run the program				
Expected result	Program calculating the distance between two points correctly.				
Actual result	An infinite bucle when measuring distance because the values of the position aren't changing				
Solution					

Bug report 5

ID	#5	Status	Solved	Severity	Critical
Description	The program crashes with core dumped				
Steps to reproduce	Run the program				
Expected result	Program calculating the distance between two points correctly.				
Actual result	Segmentation fault (Core dumped)				
Solution	Change the value of minAlt in the travelThroughAltitude function from 0 to INFINITE as if it's 0 the minAlt won't change because 0 is the minimum but if its INFINITE it will change because any height will be lower.				

Bug report 6

ID	#6	Status	Solved	Severity	High
Description	The top3 hotels isn't well displayed.				
Steps to reproduce	Run the program, choose the option plan a trip and show best hotels				
Expected result	The top 3 hotels ordered by the price, being the first one the most expensive one.				
Actual result	The top 3 but not ordered.				
Solution	In the module functions.c, in the function comparePrices, there is a + that should be changed for a -, in the return line.				

Bug report 7

ID	#7	Status	Solved	Severity	Medium
Description	In the top 3 of hotels, the one in the position 0 of the array isn't displayed				
Steps to reproduce	Run the program, choose the option plan a trip and show best hotels				
Expected result	The top 3 hotels ordered by the price, being the first one the most expensive one.				
Actual result	The top 3 but the first one in the array not being considered.				
Solution	In the module destination.c, the function getaveragehotelprice is initialized at 1 and should be at 0.				

Bug report 8

ID	#8	Status	Solved	Severity	Critical
Description	The program crashes when it should show the best altitude route.				
Steps to reproduce	Run the program, choose the option plan a trip and show best altitude route.				
Expected result	The best altitude route				
Actual result	Program stops, and it doesn't do anything until you force it to exit.				
Solution	In the module destination.c the function mapAltitude has the minAlt initialized at 0 when it should be initialized at INFINITY, this is the same bug than the number 5.				

Bug report 9

ID	#9	Status	Solved	Severity	Critical
Description	The program crashes when it should show the best altitude route.				
Steps to reproduce	Run the program, choose the option plan a trip and show best altitude route.				
Expected result	The best altitude route				
Actual result	Program stops, and it doesn't do anything until you force it to exit.				
Solution	In the module destination.c the function mapAltitude change the parameters passed to the recursive call, now they are I and j, so they are not changing and there should be newI and newJ.				

Bug report 10

ID	#10	Status	Solved	Severity	Low
Description	The menu isn't displayed correctly.				
Steps to reproduce	Run the program and see the menu.				
Expected result	The menu displayed with all the options in the same way.				
Actual result	Too much space between the two last options				
Solution	In the menu, delete a \n that was not necessary				

Bug report 11

ID	#11	Status	Solved	Severity	Low
Description	It wasn't moving in the right direction				
Steps to reproduce	Run the program and see the menu.				
Expected result	The increment of j to go north and decrement to go south				
Actual result	Too much space between the two last options				
Solution	In the module destination.c, change the ++ and the – in the advanceInDirection function.				

Bug report 12

ID	#12	Status	Solved	Severity	Medium
Description	When a directory was charged, in the option 3, there was a core dumped due to the readwholefile function				
Steps to reproduce	Run the program, choose the option 3 and try to charge a directory.				
Expected result	An error				
Actual result	Core dumped				
Solution	In the module functions.c, in the fopen change the r for r+				

Bug report 13

ID	#13	Status	Unsolved	Severity	Medium
Description	When you try to load a file, there is an error saying couldn't load the file				
Steps to reproduce	Run the program, choose the option 3 and try to load a file				
Expected result	The file loading				
Actual result	Erros, couldn't load the file				
Solution					

Conclusions

Un cop finalitzat aquest treball de debugging, he extret unes conclusions que exposaré a continuació.

En primer lloc, m'he adonat que no tenia gens de coneixements sobre aquest mon I que això ha fet que a l'inici d'aquest treball em trobés una mica perdut i no sàpigues gaire per on començar al ser la primera vegada que treballava en aquest àmbit. Això va fer que al principi em passés molt de temps per trobar els primers bugs però poc a poc anés agafant pràctica i anant una mica més ràpid.

En segon lloc, dir que aquesta tasca es una tasca que requereix de molt temps i que en alguns casos pot resultar una mica desesperant, sobretot quan et quedes encallat a un bug i no aconsegueixes resoldre'l de cap manera. Per altra banda això també fa que al trobar algun bug amb el que has passat hores buscant, resulti realment gratificant.

Per últim, aquest àmbit és un àmbit molt important dins del món de la programació ja que en qualsevol programa que fem hi haurà bugs i el debugging és una tasca que fins ara no coneixia, i tots els programes els anava arreglant com podia, i en alguns casos resultava realment difícil i crec que aquesta eina pot ser realment útil per a resoldre aquests problemes i encara més si el projecte en el que treballem és més gran.

Enllaç github

https://github.com/alexalmansa/Trip-Organizer.git