**13016235: C Programming**

**First Semester, 2019**

# Project Proposal

1. Project developer

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| Student ID | Name |
| 62011277 | Thawanrat Atthawiwatkul |

1. Project title

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| Jacky Hotel for dogs System (include Pet Calculator) |

1. Project description and requirements

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| **Project description:**  This is a dog hotel program. There are 5 functions in the program. The first function is to book a room by entering the answer that the program asks. The second is a pet calculator which can calculate your dog’s age to human’s age. The third is to print out all the name list to check your information whether it is correct or not and if it is incorrect you can delete it in the next function by entering your dog’s name. The last is an exit when you finish using the program. |
| **Project requirements:**  The standard library below :  #include <stdio.h>  #include <conio.h>  #include <ctype.h>  #include <windows.h>  #include <stdlib.h>  #include <time.h> -> to tell time in the main menu  And add.txt file which can crate in Notepad and existing it to the project.  A list of non-standard C function :  - int main()  A main function which shows an introduction about the hotel and then press enter to see a main menu. Enter 1-5 to go to each function.  - void book()  Booking function The user need to enter owner name, dog’s name , period , arrival date, phone number , breed , gender(male/female) , size(small/medium/large) , bring dry food(yes/no) , any special need(yes/no).  - void petcal()  Pet calculator function enter dog’s age.  - void deletee();  Delete function to delete on the name list by entering the dog’s name.  - void list();  Listing function to show all the name list. |
| **Source code :**  #define \_CRT\_SECURE\_NO\_WARNINGS  #include <stdio.h>  #include <conio.h>  #include <ctype.h>  #include <windows.h>  #include <stdlib.h>  #include <time.h>  //FUNCTIONS  void book();  void petcal();  void deletee();  void list();  struct CustomerDetails //STRUCTURE DECLARATION  {  char ownername[20];  char phonenumber[20];  char dogname[20];  char period[10];  char arrivaldate[10];  //char pickup[10];  char breed[10];  char size[10];  char gender[10];  char food[10];  char shower[10];  char special[10];  }c;  void book() //BOOKING FUNCTION  {  FILE\* f;  char test;  f = fopen("add.txt", "a+");  if (f == 0)  {  f = fopen("add.txt", "w+");  system("cls");  printf("Please hold on....");  printf("\nProcess completed press any key to continue");  getchar();  }  while (1)  {  system("cls");  printf("\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  printf("\n-----------|BOOKING PAGE|------------");  printf("\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  printf("\nPlease enter the information below");  printf("\n\nEnter owner's name : ");  scanf("%s", c.ownername);  fflush(stdin);  printf("\nEnter your dog's name : ");  scanf("%s", c.dogname);  printf("\nEnter your phone number : ");  scanf("%s", c.phonenumber);  printf("\nEnter period(days) : ");  scanf("%s", c.period);  //printf("\nEnter pick-up time : ");  //scanf("%s", &c.pickup);  printf("\nEnter Arrival date(dd/mm/yyyy) : ");  scanf("%s", &c.arrivaldate);  printf("\nEnter your dog's breed : ");  scanf("%s", &c.breed);  printf("\nEnter your dog's size (small/medium/large) : ");  scanf("%s", c.size);  printf("\nEnter your dog's gender (male/female) : ");  scanf("%s", c.gender);  printf("\nDo you bring his/her food? enter (yes/no) : ");  scanf("%s", c.food);  printf("\nDo your dog need any special help ? Any allergy enter (yes/no) ? //if yes enter something : ");  scanf("%s", c.special);  fwrite(&c, sizeof(c), 1, f);  fflush(stdin);  printf("\n\nSuccessfully booked!!");  //printf("\nDon't forget to pick-up your dog the same time as you arrive\n");  printf("\nPress esc key to exit or any other key to add another dog : \n");  test = getchar();  system("pause");  break;    }  fclose(f);  }  void deletee() //DELETING FUNCTION  {  FILE\* f, \* t;  int i = 1;  char dogname[20];  if ((t = fopen("temp.txt", "w")) == NULL)  exit(0);  if ((f = fopen("add.txt", "r")) == NULL)  exit(0);  system("cls");  printf("\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  printf("\n-----------|DELETING PAGE|-----------");  printf("\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  printf("\nPlease enter the answer below to delete");  printf("\nEnter your dog's name : ");  fflush(stdin);  scanf("%s", dogname);  while (fread(&c, sizeof(c), 1, f) == 1)  {  if (strcmp(c.dogname,dogname) == 0)  {  i = 0;  continue;  }  else  fwrite(&c, sizeof(c), 1, t);  }  if (i == 1)  {  printf("\n\nRecords is not found.\nPress enter to go back to the first page\n");  system("pause");  getchar();  fclose(f);  fclose(t);  main();  }  fclose(f);  fclose(t);  remove("add.txt");  rename("temp.txt", "add.txt");  printf("\nSuccessfully removed!!!\n");  printf("\n\nPress enter to go back to main menu\n");  fclose(f);  fclose(t);  getchar();  system("pause");  }  void list() //LISTING FUNCTION  {  FILE\* f;  int i;  if ((f = fopen("add.txt", "r")) == NULL)  exit(0);  system("cls");  printf("\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  printf("\n-------------------|NAME LIST|-------------------");  printf("\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n");  for (i = 0; i < 175; i++)  printf("-");  //PRINT OUT THE HEAD  printf("\nOWNER NAME\t");  printf("DOG'S NAME\t");  printf("PHONENUMBER\t");  printf("PERIOD\t");  //printf("PICK-UP TIME\t");  printf("ARRIVALDATE\t");  printf("BREED\t");  printf("\tSIZE\t");  printf("GENDER\t");  printf("FOOD(Y/N)\t");  printf("SPECIAL NEED\t\n");  for (i = 0; i < 175; i++)  printf("-");  while (fread(&c, sizeof(c), 1, f) == 1)  {  printf("\n%s \t\t%s \t\t%s \t%s \t%s \t%s \t%s \t%s \t%s \t%s", c.ownername, c.dogname, c.phonenumber, c.period, c.arrivaldate, c.breed, c.size, c.gender, c.food, c.special);  }  printf("\n");  for (i = 0; i < 175; i++)  printf("-");  printf("\n\nPress enter to go back to main menu\n");  fclose(f);  getchar();  system("pause");  }  void petcal() {  float age, newage;  system("cls");  printf("\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  printf("\n-----------|Pet calculator|-----------");  printf("\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  while (1) {  printf("\n\nEnter a dog's age in human years : ");  scanf("%f", &age);  if (age <= 0) {  printf("Age can't be less or equal to 0");  }  else if (age <= 2) {  newage = age \* 10.5;  break;  }  else {  newage = 21 + (age - 2) \* 4;  break;  }  }  printf("\nThe dog's age in human's age is %5.1f years old ", newage);  printf("\n\nPress enter to go back to main menu\n");  getchar();  system("pause");  }  int main() { //MAIN FUNCTION  int i = 0;  time\_t t;  time(&t);  char choice;  system("cls"); //FOR CLEARING SCREEN  printf("\n\n\t\t\t\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  printf("\n\t\t\t\tHello, Welcome to Jacky hotel!!!");  printf("\n\t\t\t\tThis is a hotel for dogs where they can feel like home ^^");  printf("\n\t\t\t\tThis is a program to book a room for your dog \n\t\t\t\tand a Pet Calculator to calculate your dog's age to human's age.");  printf("\n\t\t\t\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n\n");  printf("\n\t\t\t\tPress enter to continue ");  getchar(); //TO PRESS ENTER    while (1) //INFINITE LOOP  {  system("cls");  printf("\n");  printf("----------------------------------|-MAIN MENU-|---------------------------------- \n");  for (i = 0; i < 80; i++)  printf("\*");  printf("\n\t\tCurrent date and time : %s", ctime(&t));  for (i = 0; i < 80; i++)  printf("\*");  printf("\n");  printf("\t\t\t -Please enter your choice for menu-");  printf("\n\n");  printf("------------------------------------");  printf("\nEnter 1 -> Book a room");  printf("\n------------------------------------");  printf("\nEnter 2 -> Pet Calculator");  printf("\n------------------------------------");  printf("\nEnter 3 -> Print All the name list");  printf("\n------------------------------------");  printf("\nEnter 4 -> Delete");  printf("\n------------------------------------");  printf("\nEnter 5 -> Exit");  printf("\n------------------------------------");  printf("\n\n");  printf("\nEnter your answer : ");  choice = getchar();  choice = toupper(choice);  switch (choice) //SWITCH STATEMENT  {  case '1':  book();  break;  case '2':  petcal();  break;  case '3':  list();  break;  case '4':  deletee();  break;  case '5': //EXIT  //system("cls");  printf("\n\n -THANK YOU- \n\n");  exit(0);  break;  default: //OUT OF 1-5  //system("pause");  printf("\nIncorrect Input");  printf("\nPress enter to try again\n");  getchar();  system("pause");  break;  }  }    } |

Enter 5

Exit(0)

Printf every inputs

list()

Enter 3

Printf successfully removed

remove("add.txt");

rename("temp.txt", "add.txt");

if (strcmp(c.dogname,dogname) == 0)

true

Enter dogname

false

fwrite(&c, sizeof(c), 1, t);

Printf record not found

Enter 4

Deletee()

false

false

true

petcal()

printf age can’t <= 0

Enter 2

newage

newage = 21 + (age - 2) \* 4;

Printf newage

newage = age \* 10.5;

Age <=0

Age < 2

enter age

fclose(f);

f = fopen("add.txt", "a+");

fwrite(&c, sizeof(c), 1, f);

enters

book()

Enter 1