**CSE 115 Lab on Files – Ara2**

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| 1. **Opening & closing a text file:**   #include<stdio.h>  void main()  {  FILE \*fp;  fp=fopen("test.txt","r");  if(fp != NULL)  {  printf("File opened");  fclose(fp);  }  else printf("Error");  } | 1. **Writing user inputs to a text file:**   #include<stdio.h>  #include<string.h>  void main()  {  FILE \*fp;  char buffer[30];  fp=fopen("test.txt","w");  if(fp == NULL)  {  printf("Error"); return;  }  printf("Enter text to write to file (hit only enter to stop):\n");  while(1){  gets(buffer);  if(strcmp(buffer,"")==0) break;  fprintf(fp,buffer);  }  fclose(fp);  } |
| 1. **Reading from a text file:**   #include<stdio.h>  #include<string.h>  void main()  {  FILE \*fp;  fp=fopen("test.txt","r");  char c;  while((c=getc(fp))!=EOF)  putchar(c);  fclose(fp);  } | 1. **Appending to a text file:**   #include<stdio.h>  #include<string.h>  int main()  {  FILE \*fp;  fp=fopen("test.txt","a");  fprintf(fp,"Added stuffs");  fclose(fp);  return 0;  } |

1. **Writing multiple entries to files:**

#include<stdio.h>

#include<string.h>

void main()

{

FILE \*fpointer;

fpointer = fopen("input.txt", "w");

fprintf(fpointer, "Bob\n30\n20000\n");

fprintf(fpointer, "Amanda\n20\n10000\n");

fclose(fpointer);

}

1. **Reading multiple entries from files:**

#include<stdio.h>

#include<string.h>

void main()

{

FILE \*fpointer;

char name[100];

int age;

float salary;

fpointer = fopen("input.txt", "r");

while(fscanf (fpointer, "%s%d%f", name, &age, &salary)== 3)

{

if(name[strlen(name) - 1] == '\n')

name[strlen(name) - 1] = '\0';

printf("%s\n%d\n%f\n", name, age, salary);

if(feof(fpointer) == 1) break;

}

fclose(fpointer);

}

1. **Writing structures to files:**

#include <stdio.h>

#include <stdlib.h>

struct customer

{

char fname[20],lname[20];

int acct\_num;

float acct\_balance;

} cust[100];

int num = 0; //total number of customers

void main ()

{

FILE \*file;

file = fopen ("accounts.dat","w");

if (file == NULL) {

fprintf(stderr, "\nError opening accounts.dat\n\n"); exit (1);

}

int i;

for(i=0; ; i++){

printf ("Firstname (just hit enter to stop):");

gets(cust[i].fname);

if(strcmp(cust[i].fname,"")==0) break;

fflush(stdin);

printf ("Lastname:");

gets(cust[i].lname);

fflush(stdin);

printf ("Acct No:");

scanf("%d", &cust[i]. acct\_num);

fflush(stdin);

printf ("Acct Balance:");

scanf("%f", &cust[i].acct\_balance);

fflush(stdin);

}

num = i;

fwrite(cust, sizeof(struct customer), i, file);

fclose(file);

}

1. **Reading structures from files:**

#include <stdio.h>

#include <stdlib.h>

struct customer

{

char fname[20],lname[20];

int acct\_num;

float acct\_balance;

}cust[100];

int num = 0; //total number of customers

void main ()

{

FILE \*file;

file = fopen ("accounts.dat","r");

if (file == NULL)

{

fprintf(stderr, "\nError opening accounts.dat\n\n");

exit (1);

}

int i;

num = fread (cust, sizeof(struct customer), 100, file);

for(i=0; i<num; i++)

{

printf ("Name: %s %s, Acct# %d, Balance=%0.2f\n",

cust[i].fname, cust[i].lname, cust[i].acct\_num, cust[i].acct\_balance);

}

fclose(file);

}

**Exercise:**

1. Incorporate reading & writing to/from file in your project so that each time user starts the program, it doesn’t read from user, instead it reads from a certain file and then show those to the user. Also, just before the program finishes, the program should store your array of structures in a file.

Hint: combine the ideas in example 7 and 8 above to read & write to/from a file.

1. Write a main menu, which will offer the user to enter records, show records, or to save&exit.