**CODING CHALLENGE- CLASS ATTEMPTS**

// PROGRAM to display remark of grades using compound IF statement

#include <stdio.h>

int main()

{

int score;

printf("\n Enter SCORE: ");

scanf("%d", &score);

if (score > 79) printf("\n Excellent");

else if(score > 59) printf("\n Good");

else if (score > 49) printf("\n Pass");

else printf("\n Repeat");

return 0;

}

2.

//Testing the workings of SWITCH statement; skipping break statement

#include <stdio.h>

int main()

{

int option;

printf("\n Enter option: 1-male, 2, female, 3 none ");

scanf("%d", option);

switch(option){

case 1: printf("\n Male : Grant African schorlaship");

break;

case 2: printf("\n Female : Grant american schorlaship");

//break;

case 3: printf("\n No schorlaship");

//break;

default: printf("\n Input out of Range");

}// end of switch

return 0;

}//end of main

3.

//Using SWITCH multiple cases for the same action.

#include <stdio.h>

int main()

{

int option;

printf("\n Enter your option");

scanf("%d", &option);

switch(option){

case 1:case 2: printf("\n This is 100 level");

break;

case 3: printf("\n This is 300 level");

//break;

default: printf("\n Out of range");

} // end of switch statement

printf("\n Bye");

return 0;

}

4.

// G;lobal and local variables

#include <stdio.h>

#include <string.h>

#include <ctype.h>

void fnExternal();

int counter=0;

int main()

{

void fnInternal();

fnInternal();

getch();

return 0;

}

void fnInternal()

{

printf("\n Im local function to main:");

counter++;

printf("\n I count : %d", counter);

fnExternal();

}

void fnsec(){

printf("\n im another function:::");

++counter;

printf("\n counter : %d", counter);

}

void fnExternal(){

printf("\n I am global to function main:");

++counter;

printf("\n I count : %d", counter);

}

5.

// Tax program written as functions

//program to find cost after tax deduction

#include <stdio.h>

int main()

{

float price, tax; //local variable here in main

float findTax(float price, float tax); //declaration/prototype

printf("\nEnter price:");

scanf("%f", & price);

printf("\nEnter Tax:");

scanf("%f", & tax);

float r = findTax(price, tax); //function call

printf("\nCost After Tax = %f", r);

return 0;

}

//definition of function Tax computation

float findTax(float price, float tax)

{

float result;//local variable here in findTax

result = price \* (1 + tax /100);

return result;

}

6. //summing numbers written in functions

//a program to find the sum of integers from 1 to 20

#include <stdio.h>

int main()

{

int n;

int addNumbers(int n);//prototype or declaration

printf("Enter n: ");

scanf("%d", &n);

int result = addNumbers(n);//call

printf("\nThe sum of numbers between 1 and %d is: %d ",n, result);

return 0;

}

//function defintion to sum integers

int addNumbers(int n)

{

int i,sum=0;

for(i=1; i<=n; i++)

{

sum+=i; //sum = sum +i;

}

return sum;

}

7.

//finding perimeter written as function

//perimeter of a rectangle

#include <stdio.h>

int main()

{

int length, breadth, result;

int findPerimeter(int length,int breadth);

printf("Input length: ");

scanf("%d", &length);

printf("Input Breadth: ");

scanf("%d", &breadth);

result = findPerimeter(length, breadth);

printf("\n Perimeter is = %d", result);

return 0;

}

//function definition for perimeter

int findPerimeter(int length,int breadth)

{

int perimeter;

perimeter = 2\*(length + breadth);

return perimeter;

}

8. // calculator program in user-defined functions

//aritmetic computation on two integer numbers

#include <stdio.h>

int main()

{

int a, b;

int addition(int a, int b); // fn declaration/ prototype//local declaration

int subtraction(int a, int b);

int multiplication(int a , int b);

printf("Input first number:");

scanf("%d", &a);

printf("Input second number:");

scanf("%d", &b);

//int result = addition(a, b); // function call

//int result2= subtraction(a, b);

int result3 = multiplication(a,b);

printf(" The multiopppppapapa value =: %d", result3);

return 0;

}

// new fn creation; function definition

int addition(int a, int b)

{ int sum=0;

sum= a+b;

return sum;

}

// create function for subraction

int subtraction(int a, int b)

{ int sub=0;

sub= a-b;

return sub;

}

// multiply

int multiplication(int a , int b)

{

int mul;

mul=a\*b;

return mul;

}

9.

//Password program written By **AGOCHUKWU David** (Student in class)

//program to execute password authentication

#include <stdio.h>

int main()

{

int i;

int passcode=1234;

int password;

printf("Enter passcode: ");

scanf("%d",&password);

for(i=1;i<=3;i++)

{

if(password==passcode)

{

printf("\n Password Accepted\n Welcome Aboard! ");

break;

}

if(i<3)

{

printf("Wrong Password, Try again\n");

printf("\nEnter passcode: ");

scanf("%d",&password);

}

}

if(password!=passcode)

{

printf("\n 3 Attempts, Unauthorised User!");

}

return 0;

}

10. // Password program (Adekola OD) Teacher’s version

// program password

#include <stdio.h>

#define PASS 1020 //int PASS = 1020;

int main()

{

int entry;

int count = 1;

do{

printf("\nEnter Password:");

scanf("%d", &entry);

if(entry==PASS)

{

printf("\nPassword correct at attempt: %d ", count);

printf("\nWelcome to the club");

break;

}

count++;

}while(count<=3);

if(count==4)

{

printf("\nFailed Tries at Password\nThis is a Scam");

}

return 0;

}