#include<stdio.h>

#include"myprofile.h"

int main()

{ documentation(\_\_FILE\_\_);

char Name[30];

float BasicPay,Hra,Da, Pf,Gross;

printf("\nEnter your Name:");

scanf("%s",Name);

printf("Enter your BasicPay:");

scanf("%f",&BasicPay);

printf("Enter your HRA:");

scanf("%f",&Hra);

printf("Enter your DA:");

scanf("%f",&Da);

Pf=(BasicPay\*12)/100;

Gross=(BasicPay+Hra+Da+Pf);

printf("\nName:%s ",Name);

printf("\nBasicPay:%.2f",BasicPay);

printf("\nHRA:%.2f",Hra);

printf("\nDA:%.2f",Da);

printf("\nPF:%.2f",Pf);

printf("\n\*\*\*GrossSalary:%.2f\*\*\*\n",Gross);

return 0;

}

[17UITE042@ad3fy45 ~]$ vi Ex1.1\_PayRoll.c

[17UITE042@ad3fy45 ~]$ cc Ex1.1\_PayRoll.c

[17UITE042@ad3fy45 ~]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex1.1\_PayRoll.c

Date:Feb 6 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter your Name:Malik

Enter your BasicPay:125000

Enter your HRA:2000

Enter your DA:5000

Name:Gokul

BasicPay:125000.00

HRA:2000.00

DA:5000.00

PF:15000.00

\*\*\*GrossSalary:147000.00\*\*\*

#include<stdio.h>

#include"myprofile.h"

int main()

{

documentation(\_\_FILE\_\_);

int a=10;

float b=19.89;

char c='j';

double d=2.7798;

char name[10]="Malik";

printf("\nSize of Integer:%d",sizeof(a));

printf("\nSize of Float:%d",sizeof(b));

printf("\nSize of Character:%d",sizeof(c));

printf("\nSize of Double:%d",sizeof(d));

printf("\nSize of CharacterArray:%d\n",sizeof(name));

return 0;

}

[17UITE042@ad3fy45 ~]$ vi EX1.2\_Size.c

[17UITE042@ad3fy45 ~]$ cc EX1.2\_Size.c

[17UITE042@ad3fy45 ~]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:EX1.2\_Size.c

Date:Feb 6 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Size of Integer:4

Size of Float:4

Size of Character:1

Size of Double:8

Size of CharacterArray:1

#include<stdio.h>

#include"myprofile.h"

int main()

{ documentation(\_\_FILE\_\_);

int num;

printf("\nEnter the decimal number:");

scanf("%d",&num);

printf("\nOctalValue:%#o",num);

printf("\nHexadecimal Value(In small letters):%#x",num);

printf("\nHexadecimal Value(In capital letters):%#X\n",num);

return 0;

}

[17UITE042@ad3fy45 ~]$ vi Ex1.3\_Conversion.c

[17UITE042@ad3fy45 ~]$ cc Ex1.3\_Conversion.c

[17UITE042@ad3fy45 ~]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex1.3\_Conversion.c

Date:Feb 6 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter the decimal number:10

OctalValue:012

Hexadecimal Value(In small letters):0xa

Hexadecimal Value(In capital letters):0XA

#include<stdio.h>

#include"myprofile.h"

int main()

{

documentation(\_\_FILE\_\_);

char ch;

printf("\nEnter any character:");

scanf("%c",&ch);

printf("\n The ASCII value of %c is %d\n",ch,ch);

return 0;

}

[17UITE042@ad3fy45 Ex1]$ vi Ex1.4\_ASCII.c

[17UITE042@ad3fy45 Ex1]$ cc Ex1.4\_ASCII.c

[17UITE042@ad3fy45 Ex1]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex1.4\_ASCII.c

Date:Feb 6 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter any character:A

The ASCII value of A is 65

#include<stdio.h>

#include"myprofile.h"

#define s(x) #x

int main()

{

documentation(\_\_FILE\_\_);

int age;

printf("\nEnter your age:");

scanf("%d",&age);

printf("\nYour age %s is %d",s(age),age);

return 0;

}

[17UITE042@ad3fy45 ~]$ vi Ex1.5\_Stringizing.c

[17UITE042@ad3fy45 ~]$ cc Ex1.5\_Stringizing.c

[17UITE042@ad3fy45 ~]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex1.5\_Stringizing.c

Date:Feb 6 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter your age:18

#include<stdio.h>

#include<math.h>

#include"myprofile.h"

int main()

{

documentation(\_\_FILE\_\_);

double a, b, c, determinant, root1,root2, realPart, imaginaryPart;

printf("\nEnter coefficients a, b and c: ");

scanf("%lf %lf %lf",&a, &b, &c);

determinant = b\*b-4\*a\*c;

// condition for real and different roots

if (determinant > 0)

{

// sqrt() function returns square root

root1 = (-b+sqrt(determinant))/(2\*a);

root2 = (-b-sqrt(determinant))/(2\*a);

printf("\nReal Roots");

printf("\nroot1 = %.2lf \n root2 = %.2lf\n",root1 , root2);

}

//condition for real and equal roots

else if (determinant == 0)

{

root1 = root2 = -b/(2\*a);

printf("\nEqual Roots");

printf("\nroot1 = root2 = %.2lf;\n", root1);

}

// if roots are not real

else

{

realPart = -b/(2\*a);

imaginaryPart = sqrt(-determinant)/(2\*a);

printf("\nImaginary Roots");

printf("\nroot1 = %.2lf+%.2lfi \n root2 = %.2lf-%.2lfi\n", realPart, imaginaryPart,realPart, imaginaryPart);

}

return 0;

}

[17UITE042@ad3fy45 Ex2]$ cc -lm Ex2.1\_QuadraticEqn.c

[17UITE042@ad3fy45 Ex2]$ ./a.out

\*\*\*\*\*\*\*\*\*\*

FileName:Ex2.1\_QuadraticEqn.c

Date:Feb 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter coefficients a, b and c: 1 2 3

Imaginary Roots

root1 = -1.00+1.41i

root2 = -1.00-1.41i

[17UITE042@ad3fy45 Ex2]$ cc -lm Ex2.1\_QuadraticEqn.c

[17UITE042@ad3fy45 Ex2]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex2.1\_QuadraticEqn.c

Date:Feb 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter coefficients a, b and c: -9 5 6

Real Roots

root1 = -0.58

root2 = 1.14

#include<stdio.h>

#include"myprofile.h"

int main()

{

documentation(\_\_FILE\_\_);

char c;

printf("\nEnter a character: ");

scanf("%c",&c);

if( (c>='a' && c<='z') || (c>='A' && c<='Z'))

printf("\n %c is an alphabet.",c);

else

printf("\n %c is not an alphabet.\n",c);

return 0;

}

[17UITE042@ad3fy45 Ex2]$ cc Ex2.2\_Alphabet.c

[17UITE042@ad3fy45 Ex2]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex2.2\_Alphabet.c

Date:Feb 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter a character: L

L is an alphabet.

[17UITE042@ad3fy45 Ex2]$ cc Ex2.2\_Alphabet.c

[17UITE042@ad3fy45 Ex2]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex2.2\_Alphabet.c

Date:Feb 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter a character: 2

2 is not an alphabet

#include<stdio.h>

#include"myprofile.h"

int main()

{

documentation(\_\_FILE\_\_);

int year;

printf("\nEnter a year:");

scanf("%d",&year);

if(year%4 == 0)

{

if( year%100!=0)

{

// year is divisible by 400, hence the year is a leap year

if ( year%400 == 0)

printf("%d is a leap year.\n", year);

else

printf("%d is not a leap year.\n", year);

}

else

printf("%d is a leap year.\n", year );

}

else

printf("%d is not a leap year.\n", year);

return 0;

}

[17UITE042@ad3fy45 Ex2]$ cc Ex2.3\_LeapYear.c

[17UITE042@ad3fy45 Ex2]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex2.3\_LeapYear.c

Date:Feb 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter a year:1990

1990 is not a leap year.

[17UITE042@ad3fy45 Ex2]$ cc Ex2.3\_LeapYear.c

[17UITE042@ad3fy45 Ex2]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex2.3\_LeapYear.c

Date:Feb 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter a year:2004

2004 is a leap

// Performs addition, subtraction, multiplication or division depending the input from user

#include<stdio.h>

#include"myprofile.h"

int main()

{

documentation(\_\_FILE\_\_);

char operator;

double firstNumber,secondNumber;

printf("Enter an operator (+, -, \*,/): ");

scanf("%c", &operator);

printf("Enter two operands: ");

scanf("%lf %lf",&firstNumber, &secondNumber);

switch(operator)

{

case '+':

printf("%.1lf + %.1lf = %.1lf",firstNumber, secondNumber, firstNumber + secondNumber);

break;

case '-':

printf("%.1lf - %.1lf = %.1lf",firstNumber, secondNumber, firstNumber - secondNumber);

break;

case '\*':

printf("%.1lf \* %.1lf = %.1lf",firstNumber, secondNumber, firstNumber \* secondNumber);

break;

case '/':

printf("%.1lf / %.1lf = %.1lf",firstNumber, secondNumber, firstNumber / secondNumber);

break;

// operator doesn't match any case constant (+, -, \*, /)

default:

printf("Error! operator is not correct");

}

return 0;

}

[17UITE042@ad3fy45 Ex2]$ cc Ex2.4\_Calculator.c

[17UITE042@ad3fy45 Ex2]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex2.4\_Calculator.c

Date:Feb 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter an operator (+, -, \*,): +

Enter two operands: 12

23

12.0 + 23.0 = 35.0[17UITE042@ad3fy45 Ex2]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex2.4\_Calculator.c

Date:Feb 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter an operator (+, -, \*,): -

Enter two operands: 67 90

67.0 - 90.0 = -23.0[17UITE042@ad3fy45 Ex2]$ cc Ex2.4\_Calculator.c

[17UITE042@ad3fy45 Ex2]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex2.4\_Calculator.c

Date:Feb 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter an operator (+, -, \*,): \*

Enter two operands: 8

0

8.0 \* 0.0 = 0.0

[17UITE042@ad3fy45 Ex2]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex2.4\_Calculator.c

Date:Feb 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter an operator (+, -, \*,): /

Enter two operands: 9

3

9.0 / 3.0 = 3.0

#include <stdio.h>

#include"myprofile.h"

int main()

{

documentation(\_\_FILE\_\_);

int number, originalNumber, remainder, result = 0;

printf("\nEnter a three digit integer: ");

scanf("%d", &number);

originalNumber = number;

while (originalNumber != 0)

{

remainder = originalNumber%10;

result += remainder\*remainder\*remainder;

originalNumber /= 10;

}

if(result == number)

printf("%d is an Armstrong number.",number);

else

printf("%d is not an Armstrong number.",number);

return 0;

}

[17UITE042@ad3fy45 Ex3]$ cc Ex3.1\_AmstrongNumber.c

[17UITE042@ad3fy45 Ex3]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex3.1\_AmstrongNumber.c

Date:Feb 20 2018

Author:Gokulnath

RollNumber:17UITE042

Enter a three digit integer: 153

153 is an Armstrong number.

[17UITE042@ad3fy45 Ex3]$ cc Ex3.1\_AmstrongNumber.c

[17UITE042@ad3fy45 Ex3]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex3.1\_AmstrongNumber.c

Date:Feb 20 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter a three digit integer: 189

189 is not an Armstrong number.

#include<stdio.h>

#include<math.h>

#include"myprofile.h"

int getWeight(int n)

{

int w=0;

float root=ceil(pow(n,1.0/3.0));

if(n==root\*root\*root)

w+=5;

if(n%4==0&&n%6==0)

w+=4;

if(n%2==0)

w+=3;

return w;

}

int main()

{

documentation(\_\_FILE\_\_);

int nums[15];

int ws[15];

int i,j,t,n;

printf("Enter the limit:");

scanf("%d",&n);

printf("\nEnter numbers");

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

scanf("%d",&nums[i]);

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

ws[i]=getWeight(nums[i]);

printf("\nBefore sorting:\n");

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

printf("%d:%d\t",nums[i],ws[i]);

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

for(j=0;j<n-i-1;j++)

if(ws[j]>ws[j+1])

{

t=ws[j+1];

ws[j+1]=ws[j];

ws[j]=t;

t=nums[j+1];

nums[j+1]=nums[j];

nums[j]=t;

}

printf("\nSorted:\n");

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

printf("%d:%d\t",nums[i],ws[i]);

return 0;

}

[17UITE042@ad3fy45 Ex3]$ cc -lm Ex3.2\_SortWeight.c

[17UITE042@ad3fy45 Ex3]$ ./a. out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex3.2\_SortWeight.c

Date:Feb 20 2018

Author: Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter the limit:6

Enter numbers10

36

54

89

12

27

Before sorting:

10:3 36:7 54:3 89:0 12:7 27:5

Sorted:

89:0 10:3 54:3 27:5 36:7 12:7

#include<stdio.h>

#include"myprofile.h"

int main()

{

documentation(\_\_FILE\_\_);

int n,i,count=0;

float person[100];

printf("\n Enter the number of persons:");

scanf("\n %d",&n);

printf("\nEnter the height of %d person:\n",n);

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

{

scanf("%f" ,&person[i]);

if((person[i]>=150)&&(person[i]<=165))

count=count+1;

}

printf("\n Number of person whose height is above average:%d \n",count);

return 0;

}

[17UITE042@ad3fy45 Ex4]$ cc Ex4.1\_1D.c

[17UITE042@ad3fy45 Ex4]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex4.1\_1D.c

Date:Feb 27 2018

Author: Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter the number of persons:5

Enter the height of 5 person:

160

140

159

123

140

Number of person whose height is above average:2

#include <stdio.h>

#include"myprofile.h"

int main()

{

documentation(\_\_FILE\_\_);

float person[10][10],bmi[10];

int n,i,j;

printf("\nEnter the number of persons ");

scanf("%d",&n);

printf("Enter height in centimeters and weight in kgs for %d persons\n",n );

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

{

for(j=0;j<=1;j++)

{

scanf("%f",&person[i][j]);

bmi[i]=(person[i][1])/((person[i][0]/100) \*(person[i][0]/100));

}

}

printf("Height\t\tWeight\t\tBMI\n" );

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

{

for(j=0;j<=1;j++)

{

printf("%f\t",person[i][j]);

}

printf("%f\n",bmi[i]);

}

return 0;

}

[17UITE042@ad3fy45 Ex4]$ cc Ex4.2\_2D.c

[17UITE042@ad3fy45 Ex4]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex4.2\_2D.c

Date:Feb 27 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter the number of persons 5

Enter height in centimeters and weight in kgs for 5 persons

160 56

140 67

159 34

123 89

140 59

Height Weight BMI

160.000000 56.000000 21.874998

140.000000 67.000000 34.183674

159.000000 34.000000 13.448835

123.000000 89.000000 58.827419

140.000000 59.000000 30.102041

#include<stdio.h>

#include"myprofile.h"

#include <string.h>

int main()

{

documentation(\_\_FILE\_\_);

int length;

int i,j;

char input[10],temp[10];

printf("\nEnter your String with special characters:");

scanf("%s",input);

length=strlen(input);

for(i=length-1;i>=0;i--)

{

if((input[i]>='A')&&(input[i]<='Z') || (input[i]>='a')&&(input[i]<='z'))

{

temp[j]=input[i];

j++;

}

}

temp[j]='\0';

j=0;

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

{

if((input[i]>='A')&&(input[i]<='Z') || (input[i]>='a')&&(input[i]<='z'))

{

input[i]=temp[j];

j++;

}

}

printf("Reversed String:%s\t\n",input);

return 0;

}

[17UITE042@ad3fy45 Ex4]$ cc Ex4.3\_StringManipulation.c

[17UITE042@ad3fy45 Ex4]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex4.3\_StringManipulation.c

Date:Feb 27 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter your String with special characters: a@j#h&k$k

Reversed String: k@k#h&j$a

**CODING:**

#include<stdio.h>

#include "myprofile.h"

int octal(int);

int binary(int);

int hexa(int);

int main()

{

documentation(\_\_FILE\_\_);

int CH;

int num;

printf("\nEnter Decimal Number To Be Converted : \n");

scanf("%d",&num);

printf("\nSelect Conversion");

printf("\n 1. Decimal To Binary\n");

printf("\n 2. Decimal To Octal\n");

printf("\n 3. Decimal To Hexadecimal\n");

printf("\n Enter Choice Here :");

scanf("%d",&CH);

switch(CH)

{

case 1 :

binary(num);

break;

case 2 :

octal(num);

break;

case 3 :

hexa(num);

break;

default :

printf("\nYOU HAVE ENTERED WRONG CHOICE !!!");

}

return 0;

}

int binary(int n)

{

int i = 0,j=0;

int ar[10];

while(n != 0)

{

ar[i]=n%2;

n=n/2;

i++;

}

printf("\nBinary value is");

for(j=i-1;j>=0;j--)

{

printf("%d",ar[j]);

}

printf("\n");

}

int octal(int n)

{

int i = 0,j=0;

int ar[10];

while(n != 0)

{

ar[i]=n%8;

n=n/8;

i++;

}

printf("\nOctal value is");

for(j=i-1;j>=0;j--)

{

printf("%d",ar[j]);

}

printf("\n");

}

int hexa(int n)

{

int i = 0,j=0,h=65;

int ar[10];

while(n != 0)

{ ar[i]=n%16;

n=n/16;

i++;

}

printf("\nHexadecimal value is ");

for(j=i-1;j>=0;j--)

{

if(ar[j]>=10)

{ h=h+ar[j]-10;

printf("%c",h);

}

else

{printf("%d",ar[j]);

}

}

printf("\n");

}

**OUTPUT:**

[17UITE042@ad3fy45 Ex5]$ cc Ex5.1\_NumberConversion.c

[17UITE042@ad3fy45 Ex5]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex5.1\_NumberConversion.c

Date:Mar 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter Decimal Number To Be Converted : 15

Select Conversion

1. Decimal To Binary

2. Decimal To Octal

3. Decimal To Hexadecimal

Enter Choice Here :1

Binary value is 1111

[17UITE042@ad3fy45 Ex5]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex5.1\_NumberConversion.c

Date:Mar 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter Decimal Number To Be Converted : 15

Select Conversion

1. Decimal To Binary

2. Decimal To Octal

3. Decimal To Hexadecimal

Enter Choice Here :2

Octal value is17

[17UITE042@ad3fy45 Ex5]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex5.1\_NumberConversion.c

Date:Mar 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter Decimal Number To Be Converted : 15

Select Conversion

1. Decimal To Binary

2. Decimal To Octal

3. Decimal To Hexadecimal

Enter Choice Here :3

Hexadecimal value is F

**CODING:**

#include <stdio.h>

#include <string.h>

#include "myprofile.h"

int main()

{ documentation(\_\_FILE\_\_);

char s[200];

int count = 0;

char word[10],rpwrd[10],str[10][10];

int i=0,j=0,k=0,w,p;

printf("\nEnter a Sentence\n");

scanf("%[^\n]s", s);

printf("\nEnter Which Word Is To Be Replaced\n");

scanf("%s",word);

printf("\nEnter By Which Word The %s Is To Be Replaced\n",word);

scanf("%s",rpwrd);

p=strlen(s);

for (k=0; k<p; k++)

{

if (s[k]!=' ')

{

str[i][j] = s[k];

j++;

}

else

{

str[i][j]='\0';

j=0;

i++;

}

}

str[i][j]='\0';

w=i;

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

{

if(strcmp(str[i],word)==0)

strcpy(str[i],rpwrd);

printf("%s ",str[i]);

}

for (i = 0;s[i] != '\0';i++)

{

if (s[i] == ' ')

count++;

}

printf("\nNumber of words in given string are: %d\n", count + 1);

for(i=0; s[i]!='\0'; i++)

{

if(i==0)

{

if((s[i]>='a' && s[i]<='z'))

s[i]=s[i]-32;

continue;

}

if(s[i]==' ')

{

++i;

if(s[i]>='a' && s[i]<='z')

{

s[i]=s[i]-32;

continue;

}

}

else

{

if(s[i]>='A' && s[i]<='Z')

s[i]=s[i]+32;

}

}

printf("Capitalize string is: %s\n",s);

return 0;

}

**OUTPUT:**

[17UITE042@ad3fy45 Ex5]$ cc Ex5.2\_Count.c

[17UITE042@ad3fy45 Ex5]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex5.2\_Count.c

Date:Mar 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter a Sentence

Gokul is a good boy

Enter Which Word Is To Be Replaced

Gokul

Enter By Which Word The Gokul Is To Be Replaced

Gokulnath

Gokulnath is a good boy

Number of words in given string are: 5

Capitalize string is: Gokul Is A Good Boy

**CODING:**

#include <stdio.h>

#include "myprofile.h"

void towers(int, char, char, char);

int main()

{

documentation(\_\_FILE\_\_);

int num;

printf("\nEnter the number of disks : ");

scanf("%d", &num);

printf("The sequence of moves involved in the Tower of Hanoi are :\n");

towers(num, 'A', 'C', 'B');

return 0;

}

void towers(int num, char fromrod, char torod, char auxrod)

{

if (num == 1)

{

printf("\n Move disk 1 from rod %c to rod %c", fromrod, torod);

return;

}

towers(num - 1, fromrod, auxrod, torod);

printf("\n Move disk %d from rod %c to rod %c", num, fromrod, torod);

towers(num - 1, auxrod, torod, fromrod);

}

**OUTPUT:**

[17UITE042@ad3fy45 Ex5]$ cc Ex5.3\_Tower.c

[17UITE042@ad3fy45 Ex5]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex5.3\_Tower.c

Date:(null)Mar 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter the number of disks : 3

The sequence of moves involved in the Tower of Hanoi are :

Move disk 1 from rod A to rod C

Move disk 2 from rod A to rod B

Move disk 1 from rod C to rod B

Move disk 3 from rod A to rod C

Move disk 1 from rod B to rod A

Move disk 2 from rod B to rod C

Move disk 1 from rod A to rod C

**CODING:**

#include <stdio.h>

#include "myprofile.h"

int bubble\_sort(int\*,int);

int main()

{

documentation(\_\_FILE\_\_);

int n,\*arr,i,j,temp;

printf("\nEnter the limit: ");

scanf("%d",&n);

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

{

printf("\nEnter number %d: ",i+1);

scanf("%d",arr+i);

}

bubble\_sort(arr,n);

return 0;

}

int bubble\_sort(int \*arr,int n)

{

int i,j,temp;

for(i=0;i<n-1;i++)

{

for(j=0;j<(n-1-i);j++)

{

if(\*(arr+j)> \*(arr+(j+1)))

{

temp=\*(arr+j);

\*(arr+j)=\*(arr+(j+1));

\*(arr+(j+1))=temp;

}

}

}

printf("\nTHE SORTED NUMBERS ARE:\n");

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

{

printf("%d ",\*(arr+i));

}

}

**OUTPUT:**

[17UITE042@ad3fy45 Ex5]$ cc Ex5.4\_Pass.c

[17UITE042@ad3fy45 Ex5]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex5.4\_Pass.c

Date:Mar 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter the limit: 5

Enter number 1: 36

Enter number 2: 25

Enter number 3: 14

Enter number 4: 98

Enter number 5: 78

THE SORTED NUMBERS ARE:

14 25 36 78 98

[17UITE042@ad3fy45 Ex5]$ cc Ex5.4\_Pass.c

[17UITE042@ad3fy45 Ex5]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex5.4\_Pass.c

Date:Mar 13 2018

Author:Gokulnath

RollNumber:17UITE042

\*\*\*\*\*\*\*\*\*\*\*

Enter the limit: 3

Enter number 1: 63

Enter number 2: 12

Enter number 3: 42

THE SORTED NUMBERS ARE:

12 42 63

**CODING**:

#include<stdio.h>

#include "myprofile.h"

struct employee

{

int no;

char name[12];

int design\_code;

int days\_worked;

}\*ptr,e;

int main()

{

float basic,pf,payrate,ptax=200,g,t,n;

documentation(\_\_FILE\_\_);

ptr=&e;

printf("\nEnter The Employee No To Generate Payslip : ");

scanf("%d",&ptr->no);

printf("\nEnter the employee name:");

scanf("%s",ptr->name);

printf("\nEnter the no.of days worked:");

scanf("%d",&ptr->days\_worked);

if(ptr->days\_worked<30)

{

printf("\n1.Clerk\n2.Salesman\n3.Helper\n4.Computer operator");

printf("\nEnter Your choice:");

scanf("%d",&ptr→design\_code);

printf("\n\t\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n");

printf("\n\n\t\t\tShree Krishna Chemists And Druggist");

printf("\n\n\tEmp.No.: %d\t\tEmp.name: %s\t\tGen.Date: %s",ptr→no,ptr→name,\_\_DATE\_\_);

printf("\n\n\t Days Worked: %d\t",ptr->days\_worked);

switch((\*ptr).design\_code)

{

case 1:

payrate=200;

printf("\tPayRate:200");

printf("\tDesignation: Clerk");

basic=payrate\*(ptr->days\_worked);

pf=basic/10;

g=basic+pf;

t=pf+ptax;

n=g-t;

break;

case 2:

payrate=300;

printf("\tPayRate:300");

printf("\tDesignation: Salesmen");

basic=payrate\*(ptr->days\_worked);

pf=basic/10;

g=basic+pf;

t=pf+ptax;

n=g-t;

break;

case 3:

payrate=250;

printf("\tPayRate:250");

printf("\tDesignation: Helper");

basic=payrate\*(ptr->days\_worked);

pf=basic/10;

g=basic+pf;

t=pf+ptax;

n=g-t;

break;

case 4:

payrate=450;

printf("\tPayRate:400");

printf("\tDesignation: ComputerOperator");

basic=payrate\*(ptr->days\_worked);

pf=basic/10;

g=basic+pf;

t=pf+ptax;

n=g-t;

break;

default:

printf("Invalid Designation");

}

printf("\n\t\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_");

printf("\n\n\t Earnings \t Amount(Rs.)\t\tDeductions\tAmount(Rs.)");

printf("\n\t\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_");

printf("\n\n\t Basic Pay\t%.0f\t\t\t P.F.\t%.0f\n\tP.Tax:\t200",basic,pf,ptax);

printf("\n\n\t\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_");

printf("\n\n\t Gross Earn\t%.0f\tTotalDeduct\t%.0f\t\t\tNetpay\t%.0f",g,t,n);

printf("\n\t\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n");

}

else

printf("\nInvalid Days worked\n");

return 0;

}

**OUTPUT:**

[17uite019@ad3fy45 Ex6]$ cc Ex6.1\_Employee.c

[17uite019@ad3fy45 Ex6]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex6.1\_Employee.c

Date:Mar 27 2018

Author:G.Jegadeeswari

RollNumber:17UITE019

\*\*\*\*\*\*\*\*\*\*\*

Enter The Employee No To Generate Payslip : 19

Enter the employee name:Jegadeeswari

Enter the no.of days worked:53

Invalid Days worked

[17uite019@ad3fy45 Ex6]$ cc Ex6.1\_Employee.c

[17uite019@ad3fy45 Ex6]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex6.1\_Employee.c

Date:Mar 27 2018

Author:G.Jegadeeswari

RollNumber:17UITE019

Enter The Employee No To Generate Payslip : 19

Enter the employee name:Jegadeeswari

Enter the no.of days worked:25

1.Clerk

2.Salesman

3.Helper

4.Computer operator

Enter Your choice:4

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Shree Krishna Chemists And Druggist

Emp.No.: 19 Emp.name: Jegadeeswari# Gen.Date:Mar 27 2018

Days Worked: 25 PayRate:400 Designation: ComputerOperator

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Earnings Amount(Rs.) Deductions Amount(Rs.)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Basic Pay 11250 P.F. 1125

P.Tax: 200

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Gross Earn 12375 TotalDeduct 1325 Netpay 11050

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**CODING:**

#include<stdio.h>

#include<string.h>

typedef struct Student

{

char stuRoll[250],name[250];

float avg,mat,c,it,phy,chem;

} STUD;

STUD get()

{

STUD a;

printf("\nEnter the Student Roll No: ");

scanf("%s",a.stuRoll);

printf("\nEnter the Student Name: ");

scanf("%s",a.name);

printf("\nEnter the Maths mark: ");

scanf("%f",&a.phy);

printf("\nEnter the Informational Technology mark: ");

scanf("%f",&a.it);

printf("\nEnter the English mark: ");

scanf("%f",&a.c);

printf("\nEnter the Physics mark: ");

scanf("%f",&a.mat);

printf("\nEnter the C mark: ");

scanf("%f",&a.chem);

a.avg=(a.phy+a.it+a.chem+a.mat+a.c)/5;

return a;

}

void print(STUD a[],int n)

{

int i;

printf("\n\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n");

printf("\n\t\tKamaraj college of engineering and technology ");

printf("\nClass: I IT");

printf("\n\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n");

printf("\nSl.No\tRoll\tName\t\tMaths\tInTech\tEng\tPhy\tC\tInternal");

printf("\n\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n");

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

{

printf("\n%d.\t%s \t%s\t\t%d\t %d\t %d\t %d\t %d\t %d ",i+1,a[i].stuRoll,a[i].name,(int)a[i].mat,(int)a[i].phy,(int)a[i].it,(int)a[i].c,(int)a[i].chem,(int)a[i].avg);

}

}

int main()

{

STUD a[10];

int n,i;

printf("Enter the number of Students");

scanf("%d",&n);

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

{

a[i]=get();

}

print(a,n);

printf("\n\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\n\n\n");

return 0;

}

**OUTPUT:**

[17uite019@ad3fy45 Ex6]$ cc Ex6.2\_Student.c

[17uite019@ad3fy45 Ex6]$ ./a.out

\*\*\*\*\*\*\*\*\*\*\*

FileName:Ex6.2\_Student.c

Date:Mar 27 2018

Author:G.Jegadeeswari

RollNumber:17UITE019

\*\*\*\*\*\*\*\*\*\*\*

Enter the number of Students2

Enter the Student Roll No: 14

Enter the Student Name: Jegadeeswari

Enter the Maths mark: 98

Enter the Informational Technology mark: 96

Enter the English mark: 95

Enter the Physics mark: 94

Enter the C mark: 97

Enter the Student Roll No: 23

Enter the Student Name: Pirthous

Enter the Maths mark: 96

Enter the Informational Technology mark: 98

Enter the English mark: 984

Enter the Physics mark: 95

Enter the C mark: 91

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Kamaraj college of engineering and technology

Class: I IT

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Sl.No Roll Name Maths InTech Eng Phy C Internal

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. 14 Jegadeeswari 94 98 96 95 97 97

2. 23 Pirthous 95 96 98 98 91 95

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_