PRACTICAL 3.1- PROBLEM STATEMENT

In a class of n students the boys to girls ratio is p:q. Find no. boys and girls in the class and print :

1)    If boys are more than or equal to 70% in the class then print gender partiality in education

2)    If difference of boys are girls is diff and in range -5<=diff<=5 then print equal opportunities of education for both

3)    If girls are more than equal to 70% then print girls dominating in education.

4)    For all others cases print no conclusion drawn

#include<stdio.h>

int main ()

{

int t, p, q, b, bp, g, gp, diff;

printf("Enter the total number of students in class---> \n");

scanf("%d", &t);

printf("Enter the ratio of boys is to girls in the class---> \n");

scanf("%d %d", &p,&q);

b = t \* p / (p+q);

g = t - b;

bp = (b \*100/t);

gp = (g \*100/t);

diff = b - g;

printf("\nNumber of boys in the class--> %d\n\nNumber of girls in the class--> %d\n",b,g);

printf("\nPercentage of boys in the class--> %d\n\nPercentage of girls in the class--> %d\n",bp,gp);

printf("\n\nDifference between girls and boys in the class is %d\n",diff);

if (diff >= -5 && diff <=5)

{

printf("Equal Oppotunities of education are there for both boys and girls\n");

}

else if (bp >= 70)

{

printf("There is gender partiality in education as boys percentage is %d\n",bp);

}

else if(gp >= 70)

{

printf("Girls are dominating in education as girls percentage is %d\n",gp);

}

else

{

printf("There is no conclusion drawn from the given stats\n");

}

return 0;

}

PRACTICAL 3.2- PROBLEM STATEMENT

Write a menu driven program that allow the user to perform any one of the following operations based on the input given by user

i       Check number is even or odd

ii      Check number is positive or negative

iii     Printing square of the number

iv     Printing square root of the number (use math.h)

Use switch statement for a menu driven program. Also, use validation checks wherever necessary.

#include<stdio.h>

#include<math.h>

#include<stdlib.h>

int main()

{

int c, n;

while(1)

{

printf("1. Even or odd \n");

printf("2. Positive or negetive\n");

printf("3. Finding Square of a number\n");

printf("4. Finding Squareroot of a number\n");

printf("5. Exit\n\n\n");

printf("Enter your choice : ");

scanf("%d",&c);

switch(c)

{

case 1:

printf("\nEnter number:\n");

scanf("%d", &n);

if(n%2 == 0)

printf("\n\n%d is an Even number\n\n",n);

else

printf("\n\n%d is an Odd number\n\n",n);

break;

case 2:

printf("\nEnter number:\n");

scanf("%d", &n);

if(n>0)

printf("\n\nnumber is positive number\n\n");

else

printf("\n\nnumber is negetive number\n\n");

break;

case 3:

printf("\nEnter number:\n");

scanf("%d", &n);

printf("\n\nSquare of a number is %d\n\n", n\*n);

break;

case 4:

printf("\nEnter number:\n");

scanf("%d", &n);

float s;

s=sqrt(n);

printf("\n\nSquare root of a number is %.3f\n\n", s);

break;

case 5:

exit(0);

}

}

PRACTICAL 3.3- PROBLEM STATEMENT

* Amba, Aambika and Ambalika have money in the ratio x:y:z. All go to market and spend money in ratio p:q:r .total money they have initially is Rs. N .After spending money in the market who has maximum amount left with ?

#include<stdio.h>

int main()

{

int t,p,q,r,x,y,z;

float l1,l2,l3,n1,n2,n3,t1,t2,t3;

printf("The total money They had before swpending it in the market-->");

scanf("%d",&t);

printf("\n Enter The Ratio in which Amba, Aambika and Ambalika have money respectively--->\n");

scanf("%d\n%d\n%d",&x,&y,&z);

printf("Eneter the ratio in which they spent their their money respectively--->\n");

scanf("%d\n%d\n%d",&p,&q,&r);

n1=t\*x/(x+y+z);

n2=t\*y/(x+y+z);

n3=t\*z/(x+y+z);

l1=n1\*p/(p+q+r);

l2=n2\*q/(p+q+r);

l3=n3\*r/(p+q+r);

t1=n1-l1;

t2=n2-l2;

t3=n3-l3;

//printf("\n\nMoney Amba had--> %.2f\nMoney Ambika had--> %.2f1\nMoney Ambalika had--> %.2f\n",n1,n2,n3);

//printf("\nMoney Amba spent--> %.2f\nMoney Ambika spent--> %.2f\nMoney Ambalika spent--> %.2f\n",l1,l2,l3);

printf("\nMoney Amba has left-->%.2f\nMoney Ambika has left-->%.2f\nMoney Ambalika has left-->%.2f\n",t1,t2,t3);

if(t1>t2 && t1>t3)

{

printf("\nAmba has max money left");

}

if(t2>t1 && t2>t3)

{

printf("\nAmbika has max money left");

}if(t3>t1 && t3>t2)

{

printf("\nAmbalika has max money left");

}

printf("\n\nby fahad khan 20BCS6387");

return 0;

}

PRACTICAL 3.4- PROBLEM STATEMENT

While travelling in a train, you observe some college students pulling the alarm chain simply to get down at their desired point. Out of n students m<=n times students pull the chain .You have to print according to the following:

1)    If m is >=80 % of n then print strict action is required to restrict this event

2)    If m is between 50 to 80 % then print guidelines should be issued

3)    If between 10 to 50% then print request to restrict the event

4)    If less than 10% then print No action required

#include<stdio.h>

int main()

{

int n,m;

printf("Enter total number of students in the train\n");

scanf("%d",&n);

printf("Enter no. of students who pulled the chain\n");

scanf("%d",&m);

float p;

p = ((float)m/n)\*100;

if (m>n)

{

printf("number of students who pulled can not be greater than students present in the train\n");

}

else

{

if(p >= 80)

printf("Strict Actions are Required to restrict this event\n");

else if(p>=50 && p<=80)

printf("Guidlines should be issued\n");

else if(p>=10 && p<50)

printf("Request to Restrict the action\n");

else if(p<10)

printf("No action is Required\n");

}

printf("\nby FAHAD KHAN 20BCS6387");

return 0;

}