**Program**

#include<stdio.h>

#include<conio.h>

#include<stdlib.h>

void insert();

void display();

void setunion();

void intersection();

void difference();

int n,m,a[]={0,0,0,0,0,0,0,0,0},b[]={0,0,0,0,0,0,0,0,0};

void main()

{

int choice;

while(1)

{

printf("\n 1.Insert\n 2.Display\n 3.Union\n 4.Inersection\n 5.Difference\n 6.Exit \n");

printf("Enter your choice: ");

scanf("%d",&choice);

switch(choice)

{

case 1:insert();

break;

case 2:display();

break;

case 3:setunion();

break;

case 4:intersection();

break;

case 5:difference();

break;

case 6:exit (0);

break;

default:printf("Invalid choice!!!");

}

}

}

void insert()

{

int i,x;

printf("Enter the number of bits in A: ");

scanf("%d",&n);

printf("Enter the values: \n");

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

{

scanf("%d",&x);

a[x-1]=1;

}

printf("\nEnter the number of bits in B: ");

scanf("%d",&m);

printf("Enter the values:\n ");

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

{

scanf("%d",&x);

b[x-1]=1;

}

}

void display()

{

int i,j;

printf("\nValues of 1st set: ");

for(i=0;i<9;i++)

printf("%d ",a[i]);

printf("\nValues of 2st set: ");

for(i=0;i<9;i++)

printf("%d ",b[i]);

}

void setunion()

{

int i,c[10];

for(i=0;i<9;i++)

{

if(a[i]==0 && b[i]==0)

c[i]=0;

else

c[i]=1;

}

for(i=0;i<9;i++)

printf("%d",c[i]);

}

void intersection()

{

int i,c[i];

for(i=0;i<9;i++)

{

if(a[i]==1 && b[i]==1 )

c[i]=1;

else

c[i]=0;

}

for(i=0;i<9;i++)

printf("%d",c[i]);

}

void difference()

{

int i,c[10],d[10];

for(i=0;i<9;i++)

{

if(b[i]==0)

d[i]=1;

else

d[i]=0;

}

for(i=0;i<9;i++)

{

if(a[i]==1 && d[i]==1 )

c[i]=1;

else

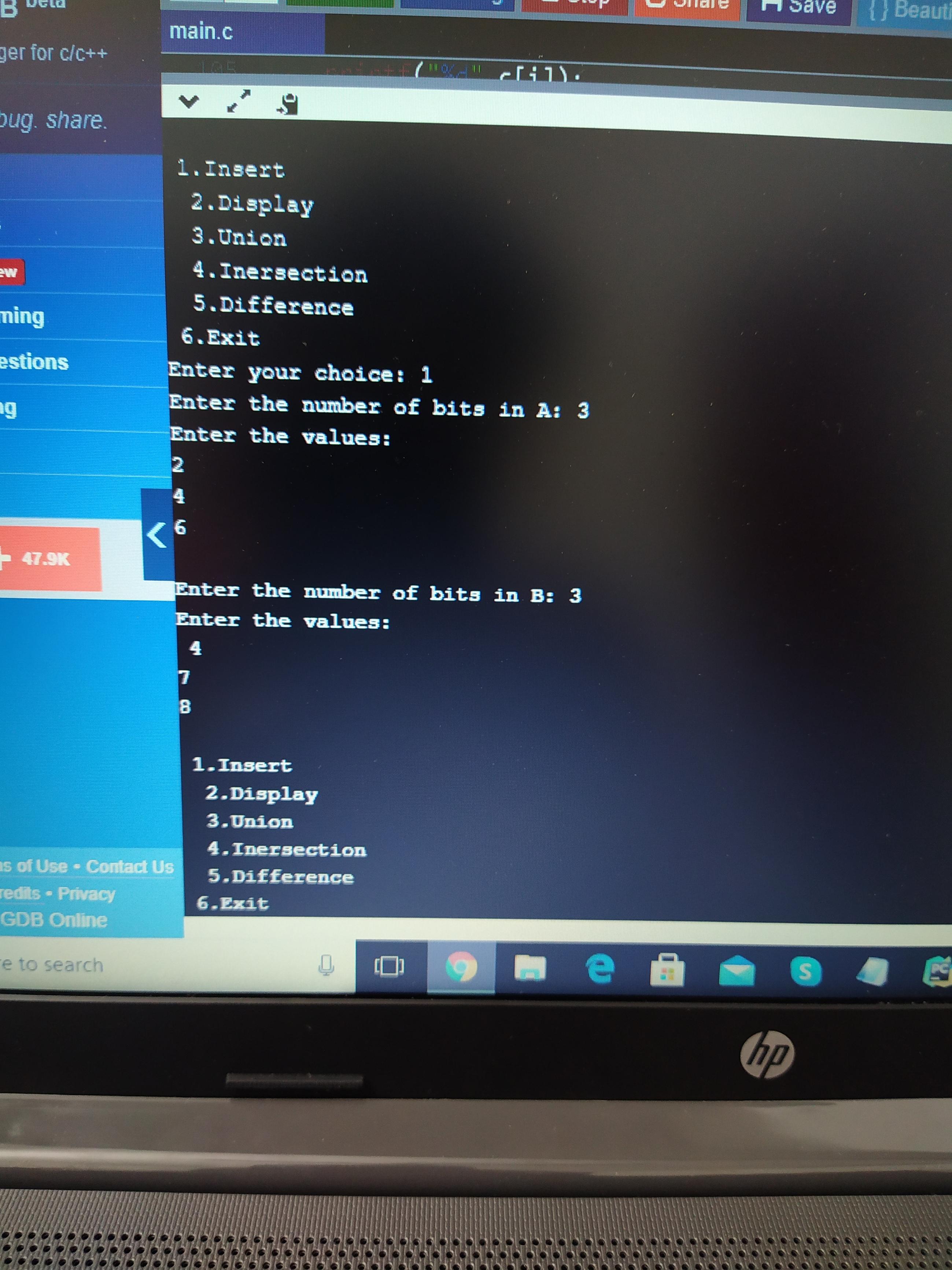
c[i]=0;

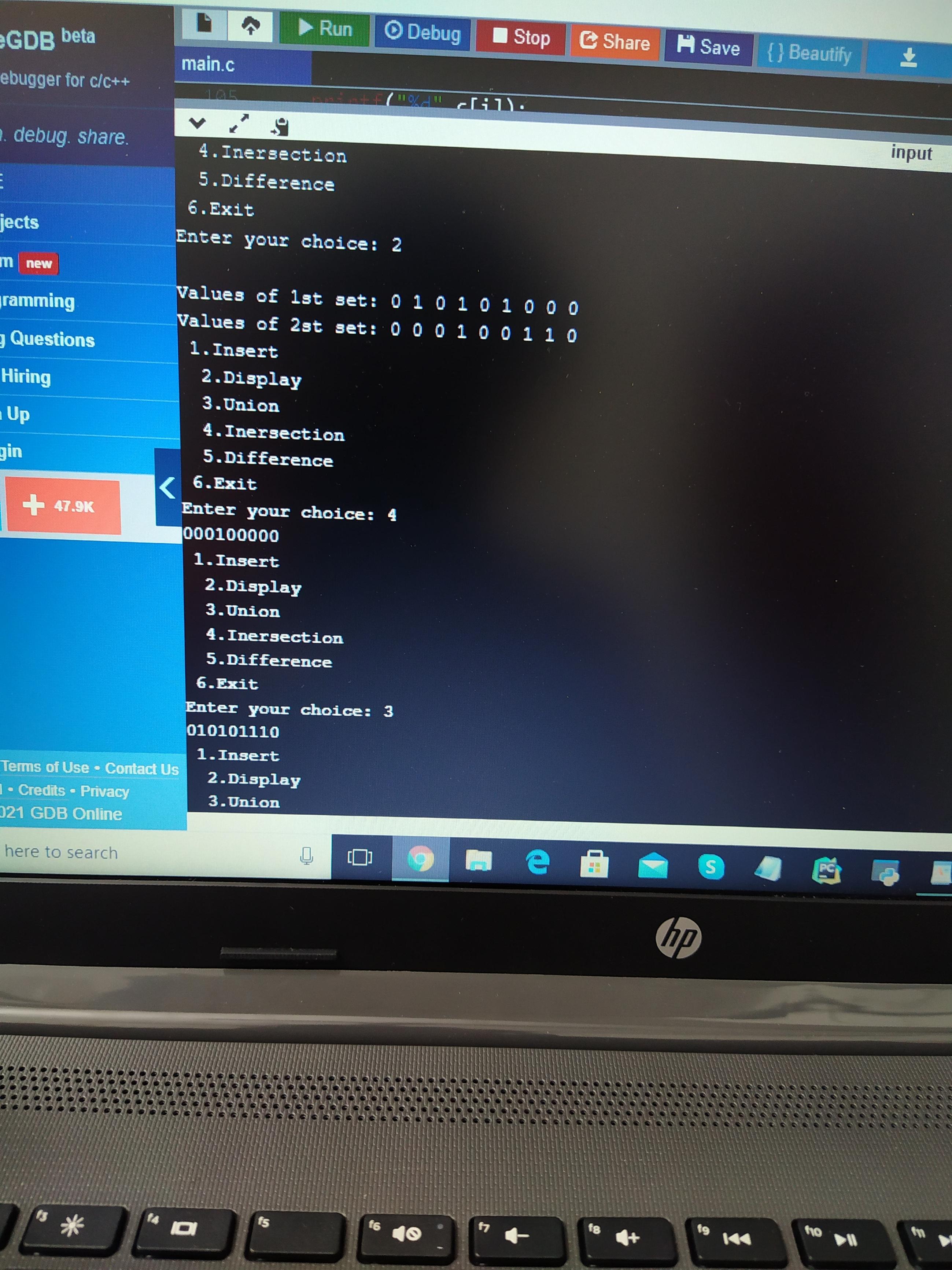
}

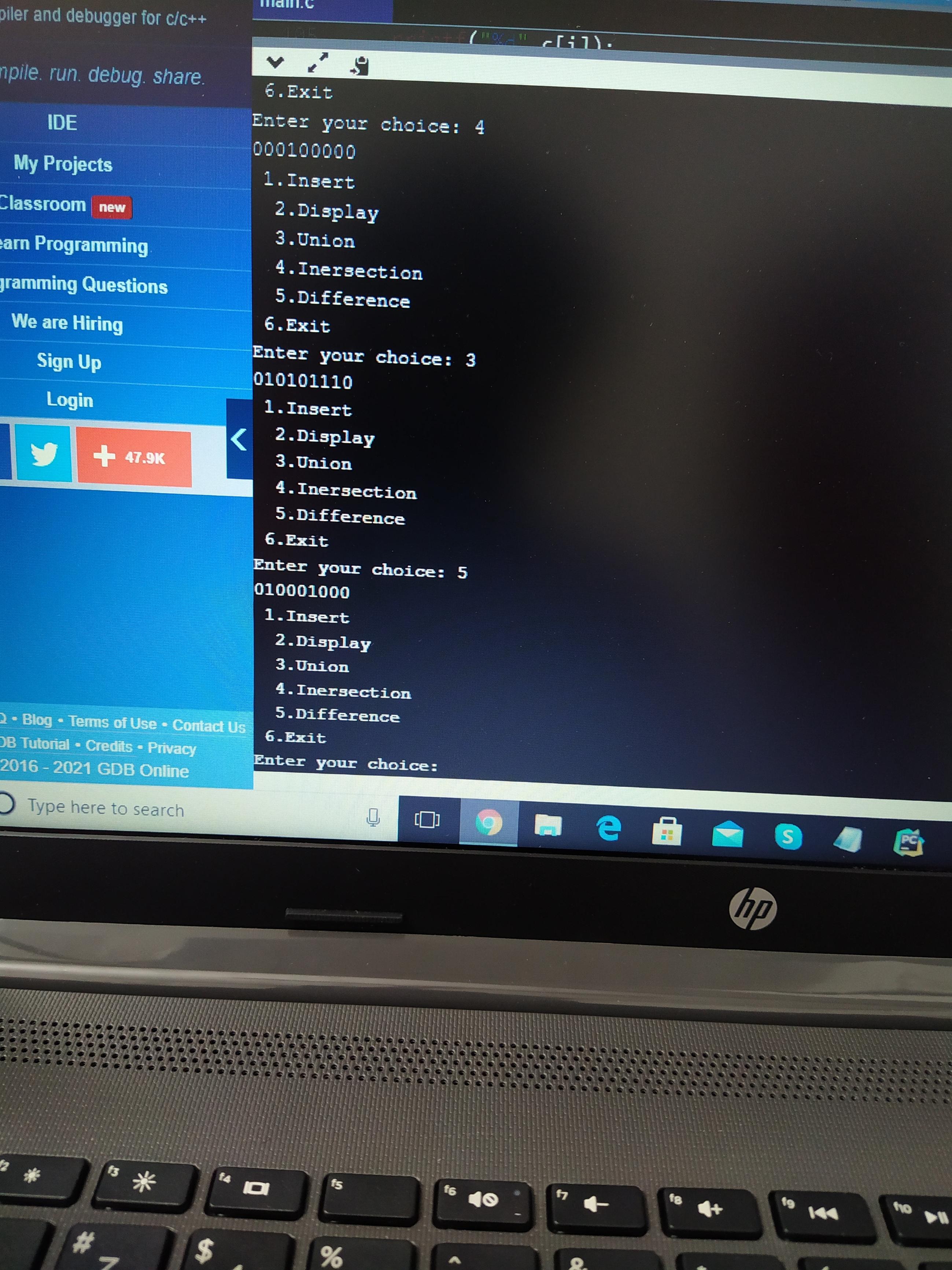
for(i=0;i<9;i++)

printf("%d",c[i]);

}

**Output**

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