#include<stdio.h>

void main()

{

int a[5],b[5],i,temp,j,ch;

printf("enter the values into the first set:");

for(i=0;i<5;i++)

{

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

}

printf("enter the valuse into the 2nd set:");

{

for(i=0;i<5;i++)

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

}

printf("the elements of 1st set are: ");

{

for(i=0;i<5;i++)

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

}

printf("\nthe elements of 2nd set are: ");

{

for(i=0;i<5;i++)

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

}

int s[100],top=-1;

while(1)

{

printf("\nenter your choice:\n 1 for union\n 2 for intersection\n 3 for difference");

scanf("%d",&ch);

if(ch==1)

{

for(i=0;i<5;i++)

{

top=top+1;

s[top]=a[i];

}

for(i=0;i<5;i++)

{

top=top+1;

s[top]=b[i];

}

printf("\n the merged elemens are: \n");

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

{

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

}

}

else if(ch==2)

{

int inv[100],top=0;

printf("the intersection of 2 sets are:");

for(i=0;i<5;i++)

{

for(j=0;j<5;j++)

{

if(a[i]==b[j])

{

inv[top]=a[i];

top=top+1;

}

}

}

// printf("the interction of 2 sets are:");

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

{

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

}

}

else if(ch==3)

{

int dev[100],top=0;

printf("the difference of SET A-B are:");

for(i=0;i<5;i++)

{

for(j=0;j<5;j++)

{

if(a[i]!=b[i])

{

break;

}

dev[top]=a[i];

top=top+1;

}

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

{

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

}

}

}

}

}

