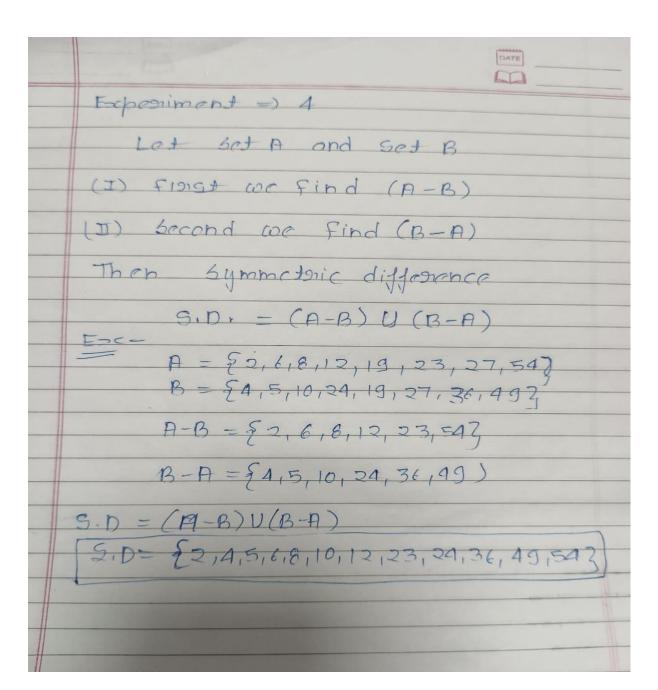
Discrete Structure & Logic Lab 2022-2023

ABHISHEK RAJPUT 2100290120007

```
Lab 4:
Q: For instance you have two sets, write a program to perform symmetric difference
operation between the sets in C.
//ABHISHEK RAJPUT
//2100290120007
#include<stdio.h>
int main()
  int a[100],b[100],c[100],d[100],m=0,k=0,n=0,n1,n2,l,i,j,SD[100];
  printf("Enter size of set A");
  scanf("%d",&n1);
  printf("Enter element of set");
  for( i=0;i< n1;i++)
  scanf("%d",&a[i]);
  printf("Enter size of set B");
  scanf("%d",&n2);
  printf("Enter element of set");
  for( i=0;i<n2;i++)
  scanf("%d",&b[i]);
  // logic for find A-B
  for( i=0;i< n1;i++){
     for(j=0;j< n2;j++){
       if(b[i]==a[i])
        break;
     if(j==n2){
       for(l=0;l< k;l++){
          if(c[1]==a[i])
          break;
       if(l==k){
          c[k]=a[i];
          k++;
     }
  // logic for find B-A
  for( i=0;i< n2;i++){
     for(j=0;j< n1;j++)
       if(b[i]==a[j])
        break;
```

```
}
if(j==n1){
       for(l=0;l< m;l++){}
         if(d[l]==b[i])
          break;
       if(l==m) {
         d[m]=b[i];
         m++;
       }
    }
  //logic for symmetric Difference
  for(i=0;i<k;i++){
    SD[n]=c[i];
    n++;
  for(i=0;i<m;i++){
    SD[n]=d[i];
    n++;
  printf("\nsymmetric Difference of sets is:-\n");
  for(i=0;i< n;i++)
  printf("%d ",SD[i]);
  return 0;
}
```



```
//ABHISHEK RAJPUT
 int main()
        int a[100],b[100],c[100],d[100],m=0,k=0,n=0,n1,n2,l,i,j,SD[100];
printf("Enter size of set A: ");
scanf("%d",%n1);
printf("Enter element of set: ");
for( i=0;i<n1;i++)
scanf("%d",%a[i]);
printf("Enter size of set B: ");
scanf("%d",%n2);
printr("Enter element of set: |");
for( i=0;i<n2;i++)
scanf("%d",%b[i]);</pre>
                 for(j=0;j<n2;j++){
    if(b[j]==a[i])
    break;</pre>
                if(c[l]==a[i])
break;
                      }
if(1==k){
    c[k]=a[i];
    k++;
// logic for find B-A
for( i=0;i<n2;i++){
    for(j=0;j<n1;j++){
        if(b[i]==a[j])</pre>
        for(l=0;l<m;l++){
    if(d[l]==b[i])
                }
if(l==m) {
    d[m]=b[i];
//logic for symmetric Difference
for(i=0;i<k;i++){</pre>
         SD[n]=c[i];
for(i=0;i<m;i++){
         SD[n]=d[i];
printf("\nsymmetric Difference of sets is:-\n");
for(i=0;i<n;i++)
printf("%d ",SD[i]);</pre>
```

```
Enter size of set A: 3
Enter element of set: 1
2
3
Enter size of set B: 2
Enter size of set B: 5
7

symmetric Difference of sets is:-
1 2 3 5 7

...Program finished with exit code 0
Press ENTER to exit console.
```