

File Edit Selection View Go Run ...

EXPLORER ...

- LAB
 - binary.c
 - binary.exe
 - bubble.c
 - bubble.exe
 - ebill.c
 - ebill.exe
 - Matrix.c
 - Matrix.exe
 - pattern.c
 - pattern.exe
 - quad.c
 - quad.exe
 - simpleCalc.c
 - simpleCalc.exe

binary.c > ...

```
1 #include <stdio.h>
2 int main()
3 {
4     int a[20], n, i, key, found = 0, high, mid, low;
5     printf("Enter the size of array\n");
6     scanf("%d", &n);
7     printf("Enter the elements of array\n");
8     for (i = 0; i < n; i++)
9         scanf("%d", &a[i]);
10    printf("Enter the key to search\n");
11    scanf("%d", &key);
12    high = n - 1;
13    low = 0;
14    while (low <= high)
15    {
16        mid = (low + high) / 2;
17        if (a[mid] == key)
18        {
19            found = 1;
20            break;
21        }
22        else if (a[mid] < key)
23            low = mid + 1;
24        else
25            high = mid - 1;
26    }
27    if (found == 1)
28        printf("key found at position %d\n", mid + 1);
29    else
30        printf("key not found\n");
31    return 0;
32 }
```

vikram@DELL-PC: /mnt/c/users/ ...

```
vikram@DELL-PC:~$ cd ..
vikram@DELL-PC:/home$ cd ..
vikram@DELL-PC:/$ cd mnt/c/users/'vikram seervi'/desktop/coding/lab/
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ls
Matrix.c    binary.exe  ebill.c    pattern.exe  simpleCalc.c
Matrix.exe  bubble.c   ebill.exe  quad.c       simpleCalc.exe
binary.c    bubble.exe  pattern.c  quad.exe
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./binary
.exe
Enter the size of array
5
Enter the elements of array
10    20    30    40    50
Enter the key to search
50
key found at position 5
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./binary
.exe
Enter the size of array
5
Enter the elements of array
10    20    30    40    50
Enter the key to search
5
key not found
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$
```

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EXPLORER ... binary.c bubble.c ebill.c Matrix.c

LAB bubble.c > main()

```
1 #include <stdio.h>
2 int main()
3 {
4     int a[20], i, j, n, temp;
5     printf("enter the size of array\n");
6     scanf("%d", &n);
7     printf("Enter the elements\n");
8     for (i = 0; i < n; i++)
9     {
10         scanf("%d", &a[i]);
11     }
12     for (i = 0; i < n - 1; i++)
13     {
14         for (j = 0; j < n - 1 - i; j++)
15         {
16             if (a[j] > a[j + 1])
17             {
18                 temp = a[j];
19                 a[j] = a[j + 1];
20                 a[j + 1] = temp;
21             }
22         }
23     }
24     printf("sorted elements are\n");
25     for (i = 0; i < n; i++)
26     {
27         printf("%d\t", a[i]);
28     }
29     printf("\n");
30     return 0;
31 }
```

> OUTLINE
> TIMELINE

vikram@DELL-PC: /mnt/c/users/ ...

```
vikram@DELL-PC:~$ cd ..
vikram@DELL-PC:/home$ cd ..
vikram@DELL-PC:/$ cd mnt/c/users/'vikram seervi'/desktop/coding/lab/
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ls
Matrix.c    binary.exe  ebill.c    pattern.exe  simpleCalc.c
Matrix.exe  bubble.c   ebill.exe  quad.c       simpleCalc.exe
binary.c    bubble.exe  pattern.c  quad.exe
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./bubble
.exe
enter the size of array
5
Enter the elements
23      4      6      12      40
sorted elements are
4      6      12      23      40
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./bubble
.exe
enter the size of array
4
Enter the elements
-3      -9      12      6
sorted elements are
-9      -3      6      12
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$
```

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Matrix.c > main()

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 int main()
4 {
5     int a[10][10], b[10][10], c[10][10];
6     int i, j, k, m, n, p, q;
7     printf("Enter the order of matrix a\n");
8     scanf("%d %d", &m, &n);
9     printf("Enter the order of matrix b\n");
10    scanf("%d %d", &p, &q);
11    if (n != p)
12    {
13        printf("Matrix multiplication is not possible\n");
14        exit(0);
15    }
16    printf("Enter the elements of matrix a\n");
17    for (i = 0; i < m; i++)
18        for (j = 0; j < n; j++)
19            scanf("%d", &a[i][j]);
20    printf("Enter the elements of matrix b\n");
21    for (i = 0; i < p; i++)
22        for (j = 0; j < q; j++)
23            scanf("%d", &b[i][j]);
24    for (i = 0; i < m; i++)
25    {
26        for (j = 0; j < q; j++)
27        {
28            c[i][j] = 0;
29            for (k = 0; k < n; k++)
30                c[i][j] = c[i][j] + a[i][k] * b[k][j];
31        }
32    }
33    printf("Resultant matrix is");
34    for (i = 0; i < m; i++)
35    {
36        printf("\n");
37        for (j = 0; j < q; j++)
38            printf("%d\t", c[i][j]);
39    }
40    printf("\n");
41 }
```

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vikram@DELL-PC:/home$ cd ..
vikram@DELL-PC:/$ cd mnt/c/users/'vikram seervi'/desktop/coding/lab/
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ls
Matrix.c  binary.exe  ebill.c  pattern.exe  simpleCalc.c
Matrix.exe bubble.c  ebill.exe quad.c      simpleCalc.exe
binary.c  bubble.exe  pattern.c quad.exe
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./Matrix.exe
Enter the order of matrix a
2 2
Enter the order of matrix b
2 2
Enter the elements of matrix a
1 2
3 4
Enter the elements of matrix b
5 6
7 8
Resultant matrix is
19 22
43 50
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$ ./Matrix.exe
Enter the order of matrix a
2 3
Enter the order of matrix b
2 2
Matrix multiplication is not possible
vikram@DELL-PC:/mnt/c/users/vikram seervi/desktop/coding/lab$
```