**DS POINTERS LAB PRACTICALS**

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1. C program to accept 'n' numbers from the user and sort them in ascending order using Dynamic Memory Allocation.

#include<stdio.h>

#include<stdlib.h>

int main()

{

int n,\*ptr,i,t,j;

printf("how many number you want to eter for sorting in ascending order");

scanf("%d",&n);

printf("enter numers");

ptr=(int\*)malloc(n\*sizeof(int));

for(i=0;i<=n-1;i++)

{

scanf("%d",(ptr+i));

}

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

{

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

{

if(\*(ptr+j)>\*(ptr+i))

{

t=\*(ptr+i);

\*(ptr+i)=\*(ptr+j);

\*(ptr+j)=t;

}

}

}printf("in ascemding order :");

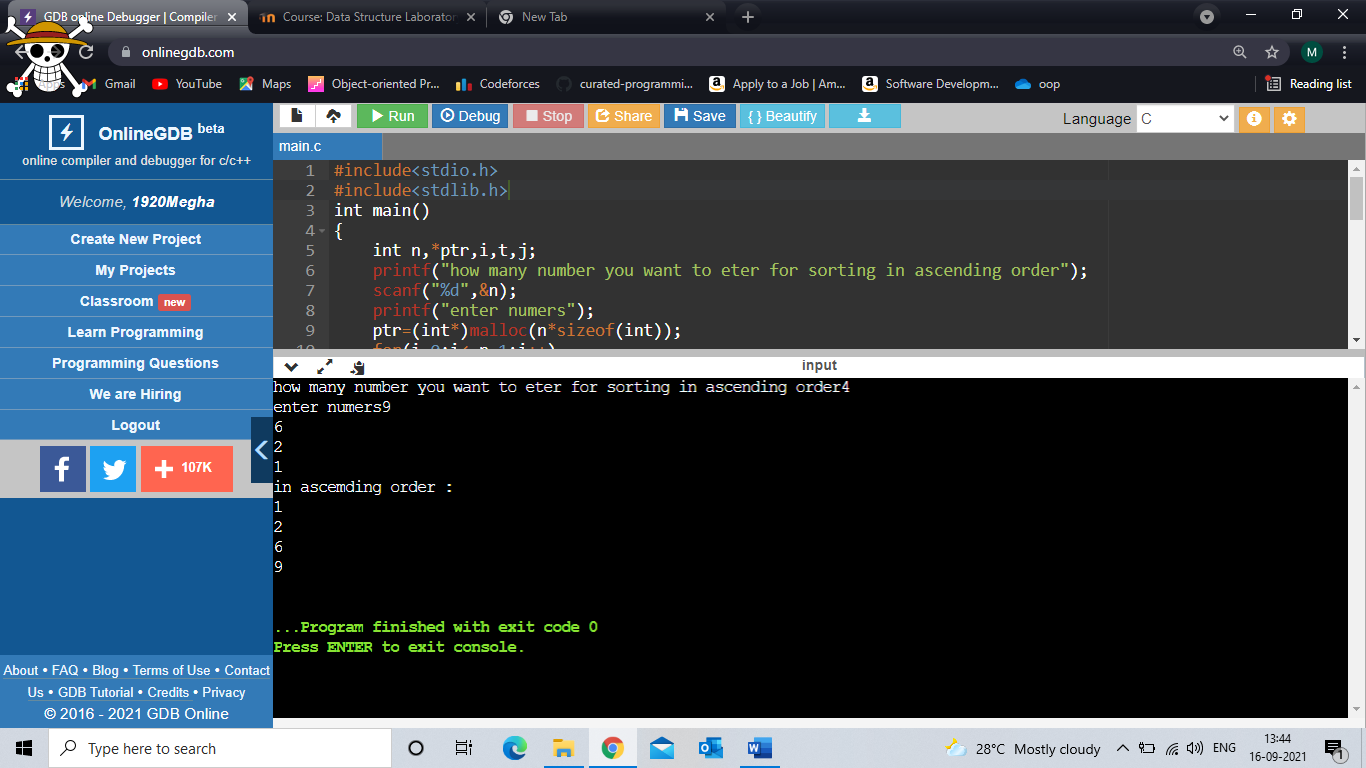
printf("\n");

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

{

printf("%d\n",\*(ptr+i));

}

}

2. C program to print the elements of an array in reverse order.

#include<stdio.h>

int main()

{

int ar[50],n;

int \*ptr1,i,t,j;

printf("enter number of element you want to enter");

scanf("%d",&n);

printf("now enter them\n");

ptr1=&ar[n-1];

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

{

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

}

printf("its reverse is");

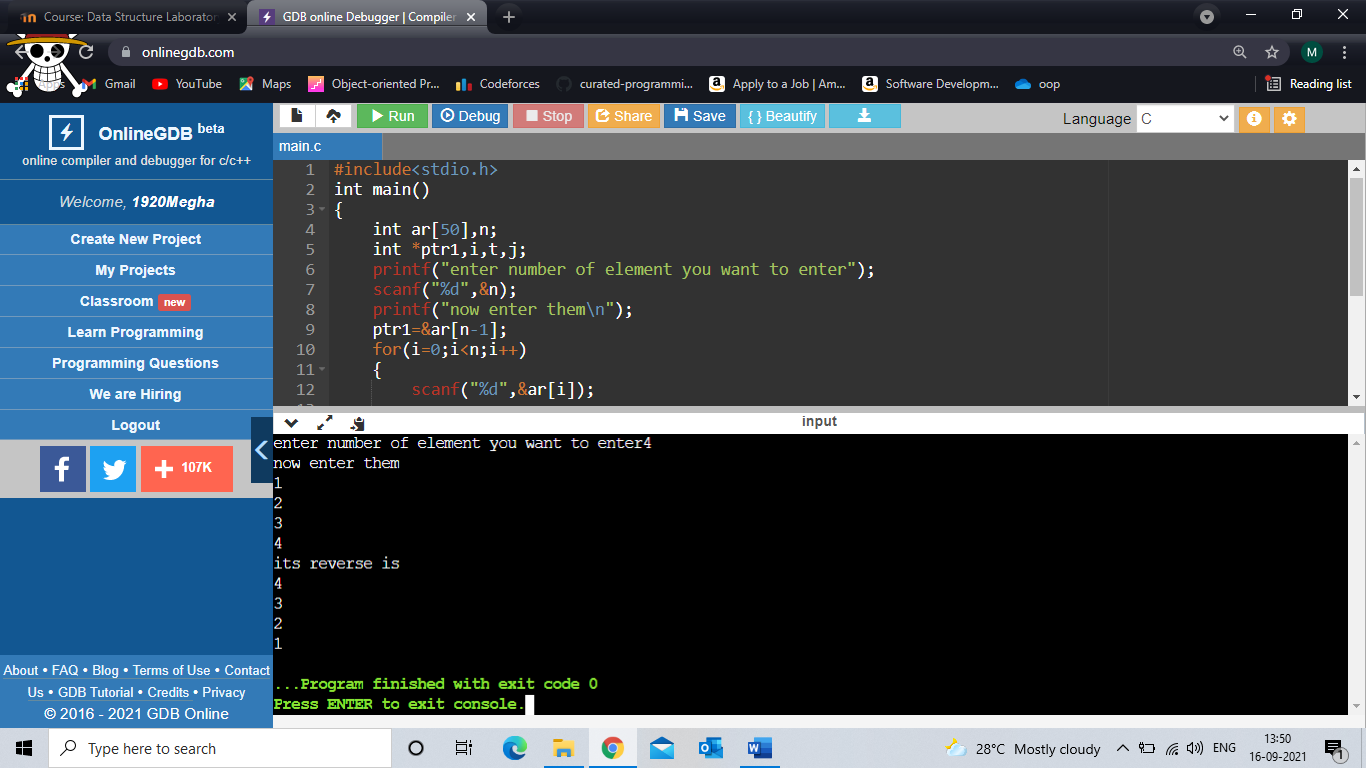
for(i=0;i<n;i++)

{

printf("\n%d",\*ptr1--);

}

}



3. C program to print all the alphabets using a pointer.

#include<stdio.h>

int main()

{

int i,d,\*p;

char c;

d=65;

p=&d;

for(i=0;i<=25;i++)

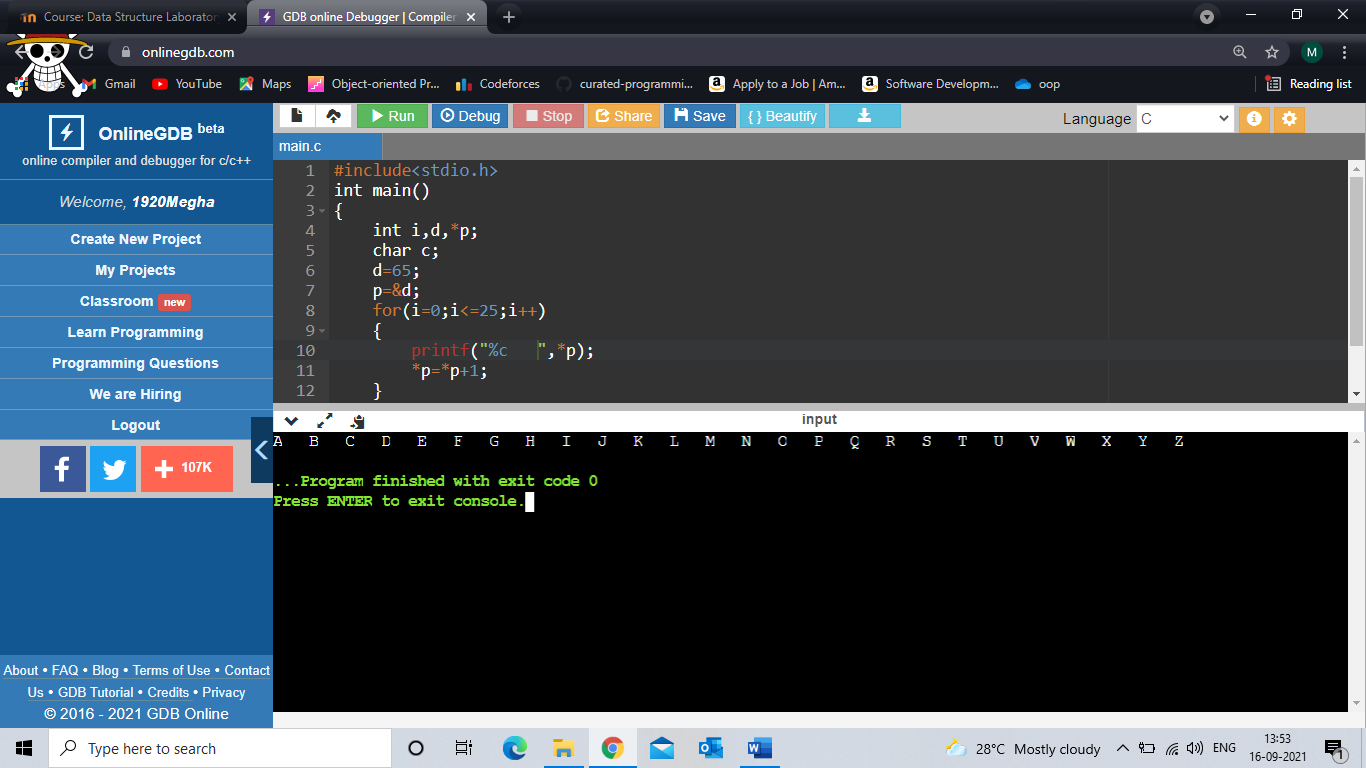
{

printf("%c ",\*p);

\*p=\*p+1;

}

}



4. C program to find the smallest number using pointer.

#include<stdio.h>

void main()

{

int i,\*ptr,n,a[10];

printf("how many number you want to enter?\n");

scanf("%d",&n);

printf("enter them\n");

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

{

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

}

ptr=&a[0];

for(i=1;i<n;i++)

{

if(\*ptr>a[1])

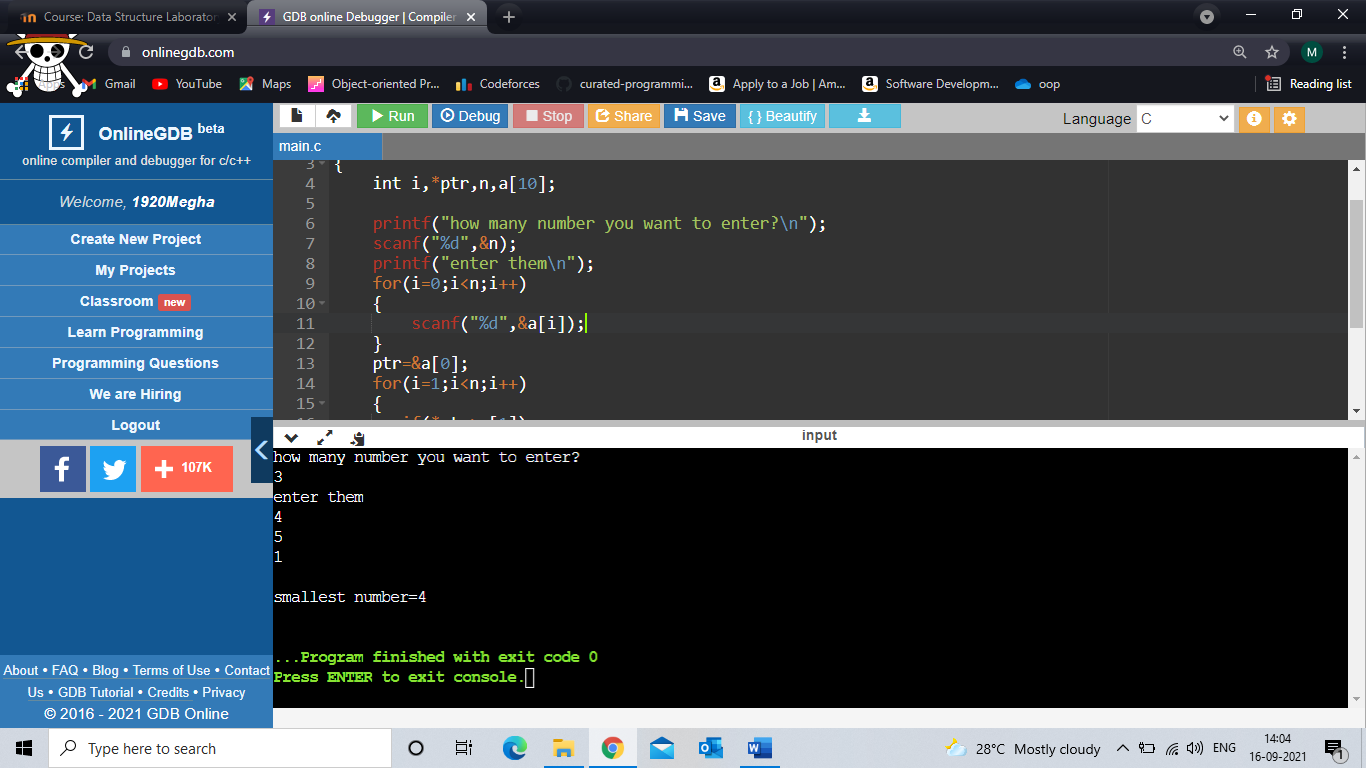
{

\*ptr=a[i];

}

}

printf("\nsmallest number=%d\n",\*ptr);

}

5. C program to copy one array to another using pointers.

#include<stdio.h>

void main()

{

int i,\*p1,\*p2,n,a1[10],a2[10];

printf("how many number you want to enter?\n");

scanf("%d",&n);

printf("enter them\n");

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

{

scanf("%d",&a1[i]);

a2[i]=NULL;

}

printf("array 2 before getting copied into\n");

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

{

printf("%d,",a2[i]);

}

p1=a2;

p2=a1;

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

{

\*p1=\*p2;

\*p1++;

\*p2++;

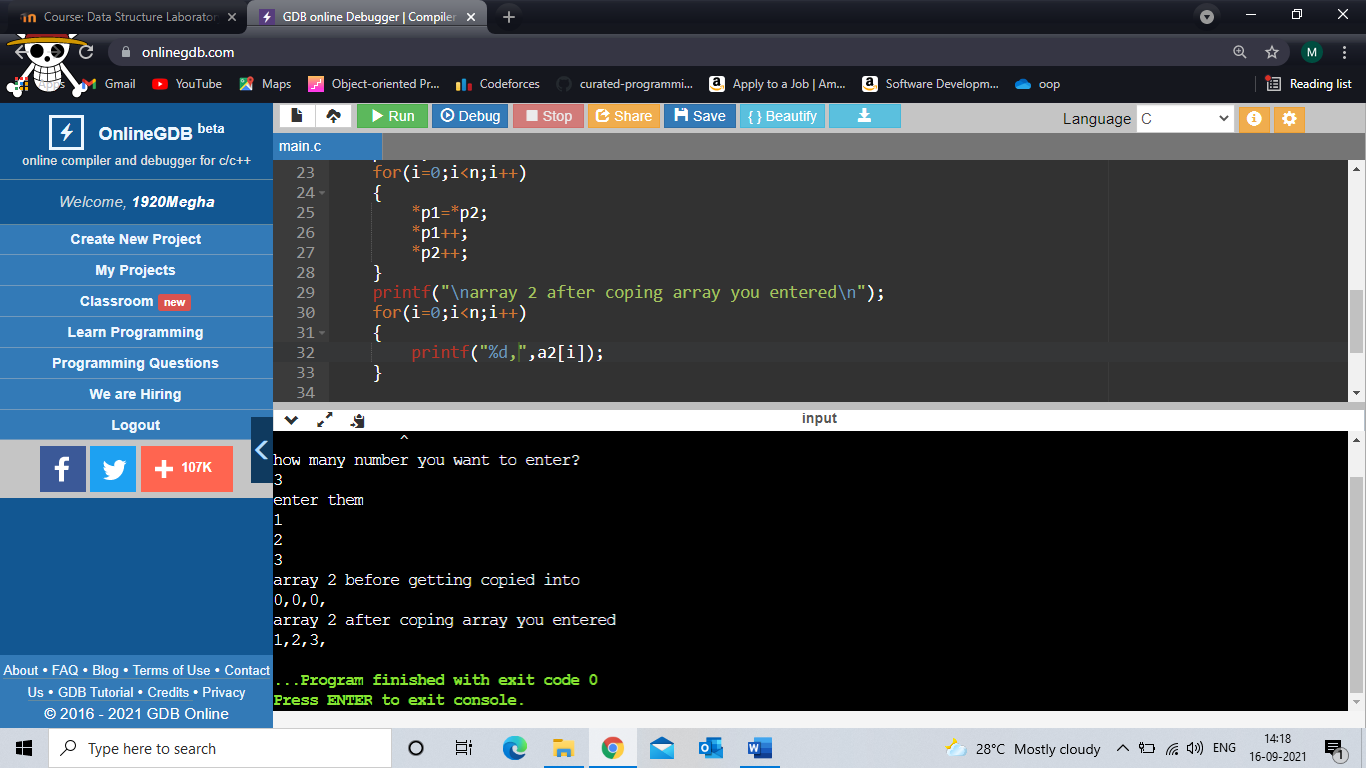
}

printf("\narray 2 after coping array you entered\n");

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

{

printf("%d,",a2[i]);

}}

6. C program to search element in array using pointers.

#include<stdio.h>

int main()

{

int a[100],\*p,i,n,j;

printf("number of array elements");

scanf("%d",&n);

printf("enter them");

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

{

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

}

printf("enter element to seach for");

scanf("%d",&j);

p=a;

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

{

if(\*p==j)

{

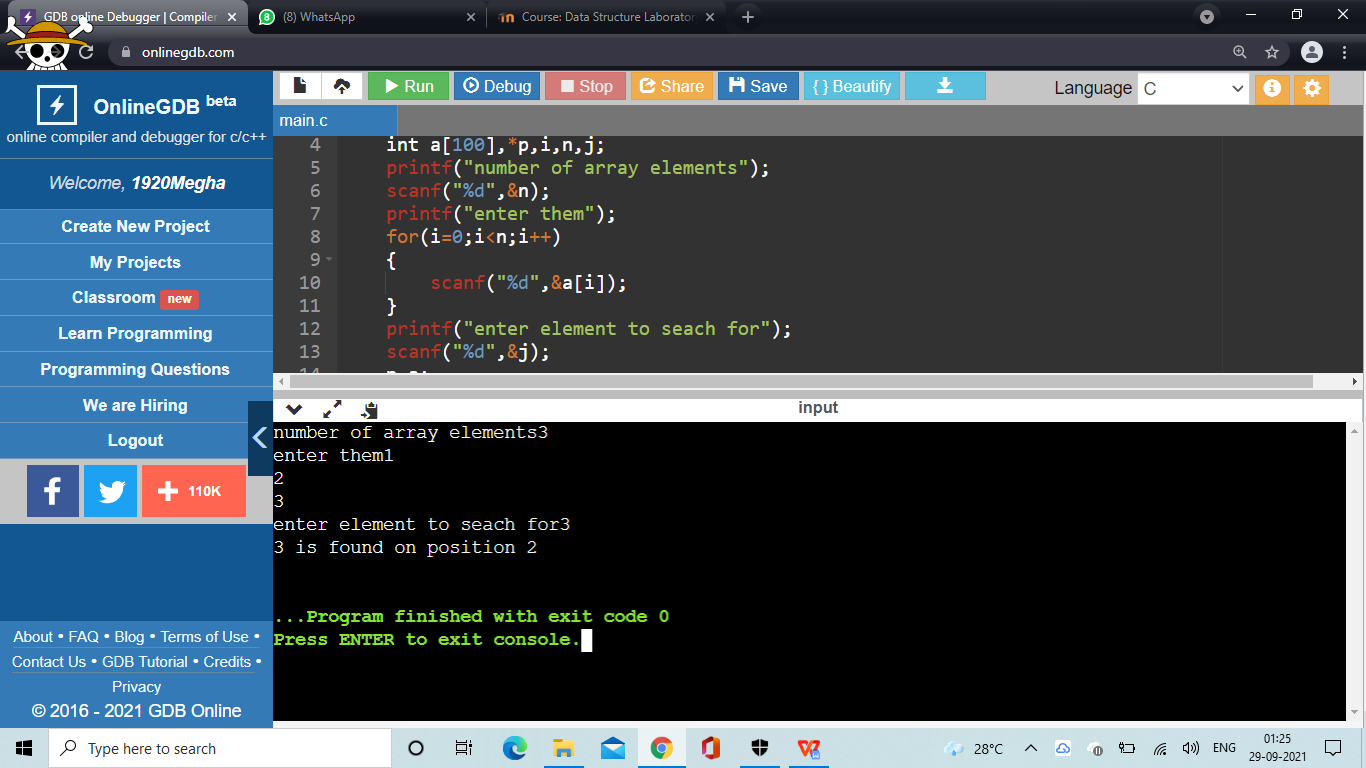
printf("%d is found on position %d\n",j,i);

}

\*p++;

}

}



7. C program to find array sum of array elements using Dynamic Memory Allocation.

#include<stdio.h>

int sum(int size);

int main()

{

int \*ptr,ar[100],n,i,s;

printf("enter the no of elements in the array\n");

scanf("%d",&n);

s=sum(n);

printf("sum is %d",s);

}

int sum(int size)

{

int sum=0,i,\*ptr;

printf("enter the elements");

ptr=(int\*)malloc(size\*sizeof(int));

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

{

scanf("%d",(ptr+i));

}

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

{

sum=sum+\*(ptr+i);

}

return sum;

}

