iNeuron

Course Name: Job Ready Bootcamp in C++, DSA and IOT

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Assignment No: 14

Date: 11-9-2022

1. Write a program to calculate the sum of numbers stored in an array of size 10. Take array values from the user.

   Program

   ```c
   #include<stdio.h>
   int main()
   {
      int a[10],i,sum=0;
      printf("Enter a 10 number:");
      for(i=0;i<=9;i++)
      {
         scanf("%d",&a[i]);
         sum=sum+a[i];
      }
      printf("Sum of 10 numbers:%d",sum);
      return 0;
   }
   ```

2. Write a program to calculate the average of numbers stored in an array of size 10.Take array values from the user.

   Program

   ```c
   #include<stdio.h>
   int main()
   {
      int a[10],i,sum=0;float avg;
      printf("Enter a 10 number:");
      for(i=0;i<=9;i++)
      {
         scanf("%d",&a[i]);
         sum=sum+a[i];
   ```

```
        }
        avg=sum/10.0;
        printf("Sum of 10 numbers:%f",avg);
        return 0;
    }
```

3. Write a program to calculate the sum of all even numbers and sum of all odd numbers, which are stored in an array of size 10. Take array values from the user.

Program

```
#include<stdio.h>
int main()
{
    int a[10],i,even=0,odd=0;
    printf("Enter a 10 number:");
    for(i=0;i<=9;i++)
    {
        scanf("%d",&a[i]);
        if(a[i]%2)
            odd=odd+a[i];
        else
            even=even+a[i];
    }
    printf("Sum of even numbers:%d",even);
    printf("\nSum of odd numbers:%d",odd);
    return 0;
}
```

4. Write a program to find the greatest number stored in an array of size 10. Take array values from the user.

Program

```c
#include<stdio.h>
int main()
{
   int a[10],i,x;
   printf("Enter a 10 number:");
   for(i=0;i<=9;i++)
      scanf("%d",&a[i]);
   x=a[0];
   for(i=1;i<=9;i++)
   {
      if(x<a[i])
         x=a[i];
   }
   printf("Greatest number is:%d",x);
   return 0;
}
```

5. Write a program to find the smallest number stored in an array of size 10. Take array values from the user.

Program

```c
#include<stdio.h>
int main()
{
   int a[10],i,x;
   printf("Enter a 10 number:");
   for(i=0;i<=9;i++)
      scanf("%d",&a[i]);
   x=a[0];
   for(i=1;i<=9;i++)
```

```
        {
           if(x>a[i])
               x=a[i];
        }
        printf("smallest number is:%d",x);
        return 0;
     }
```

6. Write a program to sort elements of an array of size 10. Take array values from the user.

Program

```
#include<stdio.h>
int main()
{
   int a[10],i,b,x;
   printf("Enter a 10 numbers:");
   for(i=0;i<=9;i++)
       scanf("%d",&a[i]);
   for(b=0;b<=9;b++)
   {
      x=a[b];
      for(i=b+1;i<=9;i++)
      {
         if(x>a[i])
         {
            x=a[i];
            a[i]=a[b];
            a[b]=x;
         }
      }
   }
   for(i=0;i<=9;i++)
```

```c
        printf("%d ",a[i]);
      return 0;
}
```

7. Write a program to find second largest in an array. Take array values from the user.

Program

```c
#include<stdio.h>
int main()
{
   int a[4],i,b,x;
   printf("Enter a 4 numbers:");
   for(i=0;i<=3;i++)
      scanf("%d",&a[i]);
   for(b=0;b<=3;b++)
   {
      x=a[b];
      i=b+1;
      for(i;i<=3;i++)
      {
         if(x>a[i])
         {
            x=a[i];
            a[i]=a[b];
            a[b]=x;
         }
      }
   }
   printf("Second largest number is:%d",a[2]);
   return 0;
}
```

8. Write a program to find the second smallest number in an array.Take array values from the user.

Program

```c
#include<stdio.h>
int main()
{
    int a[4],i,b,x;
    printf("Enter a 4 numbers:");
    for(i=0;i<=3;i++)
        scanf("%d",&a[i]);
    for(b=0;b<=3;b++)
    {
        x=a[b];
        i=b+1;
        for(i;i<=3;i++)
        {
            if(x>a[i])
            {
                x=a[i];
                a[i]=a[b];
                a[b]=x;
            }
        }
    }
    printf("Second smallest number is:%d",a[1]);
    return 0;
}
```

9. Write a program in C to read n number of values in an array and display it in reverse order. Take array values from the user.

Program

```c
#include<stdio.h>
int main()
{
   int a[3],i;
   printf("Enter 3 number:");
   for(i=0;i<=2;i++)
      scanf("%d",&a[i]);
   for(i=2;i>=0;i--)
      printf("%d ",a[i]);
   return 0;
}
```

10. Write a program in C to copy the elements of one array into another array.Take array values from the user.

Program

```c
#include<stdio.h>
int main()
{
   int a[3],b[3],i;
   printf("Enter a 3 number:");
   for(i=0;i<=2;i++)
   {
      scanf("%d",&a[i]);
      b[i]=a[i];
      printf("%d ",b[i]);
   }
   return 0;
}
```