(ARRAY PROBLEMS SOLUTION)

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BSCS IST (SS1)

Problem 7.1

Write a program that inputs five integers from user and store them in array. It then display all values in array without using loops .

```
#include <iostream>

using namespace std;

int main ()

{

int arr[5];

cout<<"enter five integers"<<endl;

cin>>arr[0];

cin>>arr[1];

cin>>arr[2];

cin>>arr[3];

cin>>arr[4];

cout<<"the value in array are"<<endl;

cout<<arr[0]<<endl;

cout<<arr[1]<<endl;

cout<<arr[2]<<endl;

cout<<arr[3]<<endl;

cout<<arr[4]<<endl;

return 0;

}
```

Problem 7.2

Write a program that inputs five integers from user and store them in array. It then display all values in array with using loops .

```
#include <iostream>

using namespace std;

int main ()

{

int arr[5],i;

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

{

cout<<"enter five integers"<<endl;

cin>>arr[i];

}

cout<<"the value in array are"<<endl;

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

cout<<arr[i]<<endl;

return 0;

}
```

Problem 7.3

Write a program that inputs five integers from user and store them in array. It then display sum and average of all values in array with using loops .

```
#include <iostream>

using namespace std;

int main ()

{
```

```
int arr[5],i,sum=0;

float avg=0.0f;

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

{

cout<<"enter five integers"<<endl;

cin>>arr[i];

sum=sum+arr[i];

avg=sum/5.0;

}

cout<<"the sum value in array are"<<endl;

cout<<sum<<endl;

cout<<"the average value in array are"<<endl;

cout<<avg<<endl;

return 0;

}
```

Problem 7.4

Write a program that inputs the current day and time from the user.It then calculates and display the total number of days in the current year til the entered date.

```
#include <iostream>

using namespace std;

int main ()

{

int months,days,total;

int dayspermonth[12]={31,28,31,30,31,30,31,31,30,31,30,31};

cout<<"enter month"<<endl;

cin>>months;
```

```
cout<<"enter days "<<endl;

cin>>days;

for (int i=0; i<months-1; i++)

{

total+= dayspermonth [i];

}

cout<<"total days are "<<total<<endl;

return 0;

}
```

Problem 7.5

Write a program that inputs ages of different persons and at the end it tells how many persons have ages between 50 and 60.

```
#include <iostream>

using namespace std;

int main ()

{

int n,age[150],count=0;

cout<<"enter the numbers of persons"<<endl;

cin>>n;

cout<<"enter age of the " <<n<<" persons"<<endl;

for (int j=0;j<n; j++)

{

cin>>age[j];

if ((age[j]>=50) && (age[j]<=60))

{

count=count+1;

}
```

```
}

cout<<count<<" persons ages are in between 50 and 60"<<endl;

return 0;

}
```

Problem 7.6

Write a program that uses four arrays numbers,squares,cubes and sums each consisting of five elements. The numbers array stores the values of its indexes, the squares array stores the squares of its indexes, the cubes array stores the cubes of its indexes and sums array stores the sum of corresponding indexes of three arrays. The program should display the values of all arrays and the total of all values in sums array.

```
#include <iostream>

using namespace std;

int main ()

{

const int size =5;

int numbers[size];

int square [size];

int cube [size];

int sum [size];

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

{

numbers[i]=i;

square[i]=i*i;

cube[i]=i*i*i;

sum[i]=numbers[i]+square[i]+cube[i];

}

int total=0;
```

```
cout<<" numbers:\t";
for (int j=0; j<size; j++)
{
cout<<numbers[j]<<"\t";
}
cout<<endl;
cout<<"squares:\t";
for (int k=0; k<size; k++)
{
cout<<square[k]<<"\t";
}
cout<<endl;
cout<<"cubes:      \t";
for (int l=0; l<size; l++)
{
cout<<cube[l]<<"\t";
}
cout<<endl;
cout<<"sum:                    \t";
for (int m=0; m<size; m++)
{
cout<<sum[m]<<"\t";
total=total+sum[m];
}
cout<<endl;
cout<<"grand total is "<<total<<endl;
```

```
return 0;

}
```

Problem 7.7

Write a program that inputs an array of size 10. And then display maximum number from them .

```
#include <iostream>

using namespace std;

int main ()

{

int max;

int arr[10];

for (int i=0; i<10; i++)

{

cout<<"enter a number"<<endl;

cin>>arr[i];

}

max=arr[0];

for (int j=0; j<10; j++)

{

if (max<arr[j])

{

max=arr[j];

}

}

cout<<"Maximum number is

"<<max<<endl;
```

```
return 0;

}
```

Problem 7.8

Write a program that inputs an array of size 10. It then display the minimum number from it.

```
#include <iostream>

using namespace std;

int main ()

{

int min;

int arr[10];

for (int i=0; i<10; i++)

{

cout<<"enter a number"<<endl;

cin>>arr[i];

}

min=arr[0];

for (int j=0; j<10; j++)

{

if (min>arr[j])

{

min=arr[j];

}

}

cout<<" Minimum number is "<<min<<endl;

return 0;
```

```
}
```

Problem 7.9

Write a program that inputs an array of size 05 and then display them in reverse order .

```
#include <iostream>

using namespace std;

int main ()

{

int min;

const int size =5;

int arr[size];

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

{

cout<<"enter a number"<<endl;

cin>>arr[i];

}

cout<<"new array is "<<endl;

for (int j=size-1; j>=0; j--)

{

cout<<arr [j]<<"\t";

}


return 0;

}
```

Problem 7.10

Write a program with an array .It inputs a value from the user and then search that in array.

```
#include <iostream>

using namespace std;

int main ()

{

int s,found=-1;

const int size =5;

int arr[size];

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

{

cout<<"enter a number"<<endl;

cin>>arr[i];

}

cout<<"Enter a searching number "<<endl;

cin>>s;

for (int j=0; j<size && found==-1; j++)

{

if (s==arr [j])

{

found=j;

}

}

if (found!=-1)

{

cout<<s<<" found at the index "<<found<<endl;

}

else
```

```
cout<<s<<" not found at the array"<<endl;


return 0;

}
```