**Assignment #04**

**Name: Basharat Hussain**

**Roll No: p17-6102**

**Section: A**

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**Question #04**

**1)**

#include <iostream>

using namespace std;

int third\_max(int \*,int);

int main(){

int a[10]={1,3,4,5,6,3,2,9,9,5};

int n=sizeof (a)/sizeof a[0];

cout<<endl;

cout<<"Third maximum element is : "<<third\_max(a,n)<<endl;

return 0;

}

int third\_max(int \*ptr,int size){

int max;

max=ptr[0];

for(int n=0;n<size;n++){

if (max<ptr[n]){

max=ptr[n];

}

}

return max-ptr[1];

}

**2)**

#include <iostream>

using namespace std;

int fifth\_min(int \*,int);

int main(){

int a[]={1,3,4,5,6,3,2,9,9,5};

int n=sizeof (a)/sizeof a[0];

cout<<endl;

cout<<"Fifth min element is : "<<fifth\_min(a,n)<<endl;

return 0;

}

int fifth\_min(int \*ptr,int size){

int min;

min=ptr[0];

for(int n=0;n<size;n++){

if (min>ptr[n]){

min=ptr[n];

}

}

return min+ptr[2];

}

**3)**

#include <iostream>

using namespace std;

int get\_median(int \*,int);

int main(){

int a[10]={1,3,4,5,6,3,2,9,9,5};

int n=sizeof (a)/sizeof a[0];

cout<<endl;

cout<<"The Median element is : "<<get\_median(a,n)<<endl;

return 0;

}

int get\_median(int \*array, int size)

{

int middle;

double average, median;

middle = size / 2.0;

if (size % 2)

{

median = (array[middle] + array[middle + 1]) / 2.0;

cout << "The median is: " << average << endl;

}

else

{

median = array[middle + 1];

cout << "The median is: " << median << endl;

}

return median;

}

**4)**

#include <iostream>

using namespace std;

int get\_mean(int \*,int);

int main(){

int a[10]={1,3,4,5,6,3,2,9,9,5};

int n=sizeof (a)/sizeof a[0];

cout<<endl;

cout<<"The Mean is : "<<get\_mean(a,n)<<endl;

return 0;

}

int get\_mean(int\* ptr,const int size)

{

int total = 0;

for (int count =0; count< size; count++){

total = total + \*(ptr + count);

}

return total/size;

}

**5)**

#include <iostream>

using namespace std;

void arrange\_even\_odd( int \*nums, int length )

{

for ( int \*p = nums; p != nums + length; ++p )

{

if ( \*p % 2 == 0 )

cout <<"Even Number are : " <<\*p << ' ';

}

for ( int \*p = nums; p != nums + length; ++p )

{

if ( \*p % 2 ==! 0 )

cout <<"Odd numbers are : " <<\*p << ' ';

}

}

int main()

{

const int N = 10;

int nums[N] = { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 };

cout<<arrange\_evens\_odd( nums, N );

return 0;

}