Exercise 3: Finding Index of Smallest Value

This exercise, requires you to find the index of the smallest value in an array using the concept of Templates

We'll cover the following

- Problem Statement

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In the code widget below, **two** functions both called `index_of_smallest` are declared. One finds **minimum** value index of an `int` type array and the other for `double` type.

In this exercise, you need to define a **Template Class type** function `index_of_smallest` that will generalize the function such that it finds **minimum** value index for both `int` and `double` type array input values.

> **IMPORTANT NOTE:** Remove both the `int` and `double` type `index_of_smallest` functions and then write the code for the **Template Class type** `index_of_smallest` function there.

The function code for finding the **index** of the **smallest** value in an *array*:

- Takes **three** values:
  - **Array of values**
  - **Start index value**
  - **Size of array**

Down below is what the *expected output* should look like.

Input 1:

```
int array []= {2,3,4,8,1}
```

Input 2:

```
double array[] = {2.5,3.3,1.5,8.2,4.2}
```

Expected Output 1:

```
Index of smallest value is: 4
```

Expected Output 2:

```
Index of smallest value is: 2
```

Write your code below. It is recommended that you try solving the exercise yourself before viewing the solution.

Good Luck!

```
#include <iostream>
using namespace std;

//define your template type function index_of_smallest here
int index_of_smallest(int a[], int start_index, int size)
{
  //body of code
}

int index_of_smallest(double a[], int start_index, int size)
{
  //body of code
}
```