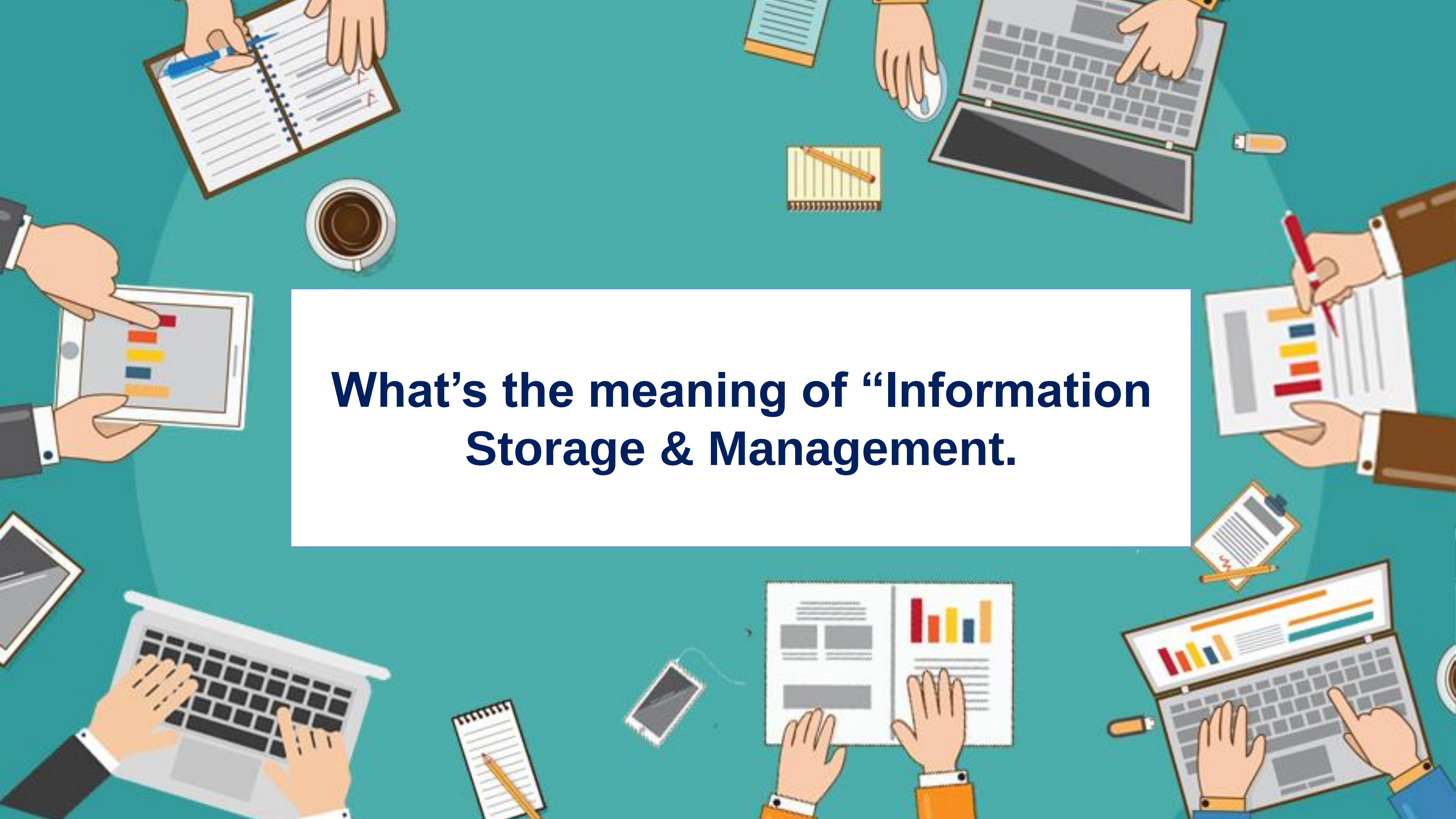
Information Storage & Management

“Lab 1”

Agenda

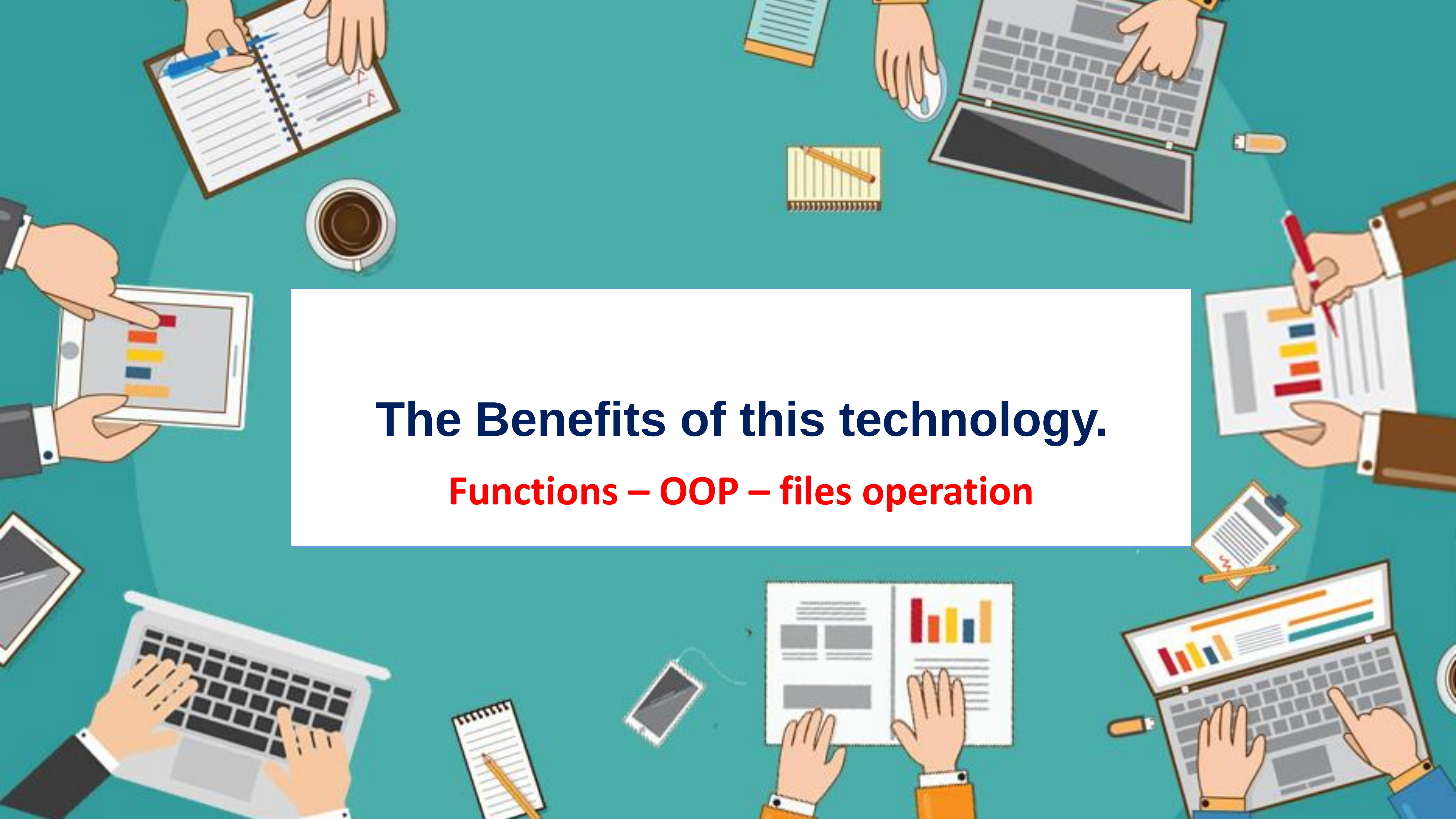
- ❑ What’s the meaning of “Information Storage & Management.
- ❑ Technology that we will use?!!
- ❑ The Benefits of this technology.
- ❑ Start To work
    - 5 Steps to treat with files “C++”
    - Writing on files
    - Reading from files
    - Modes



What’s the meaning of “Information Storage & Management.

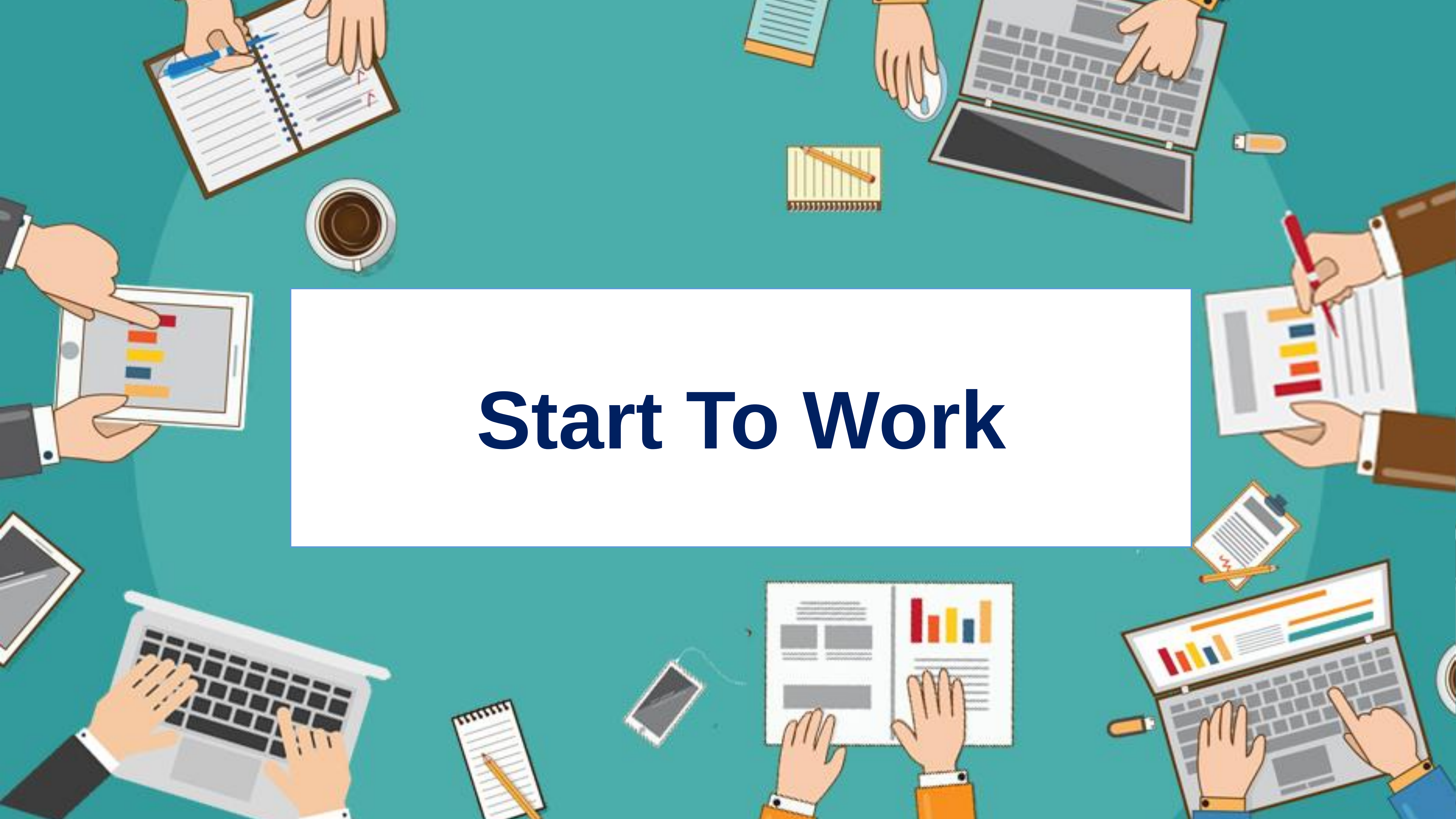
Technology that we will use?!!

“File Systems – C++ - Visual studio”



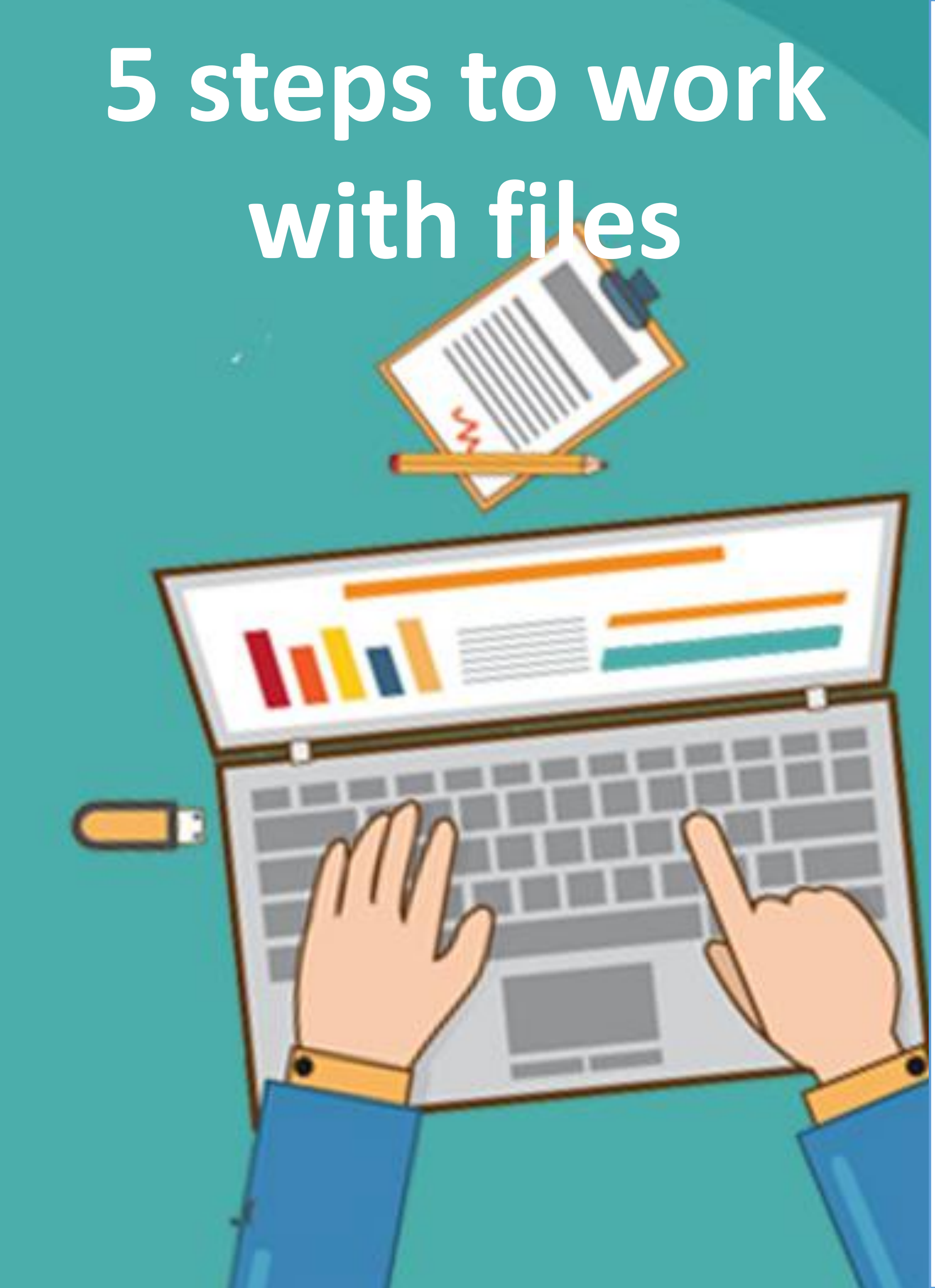
The Benefits of this technology.

Functions – OOP – files operation



Start To Work

5 steps to work with files



1. Include header file <fstream>
2. Create object (ofstream –ifstream- fstream)
3. Open file
4. Do the operation on file
5. Close file

Writing on files

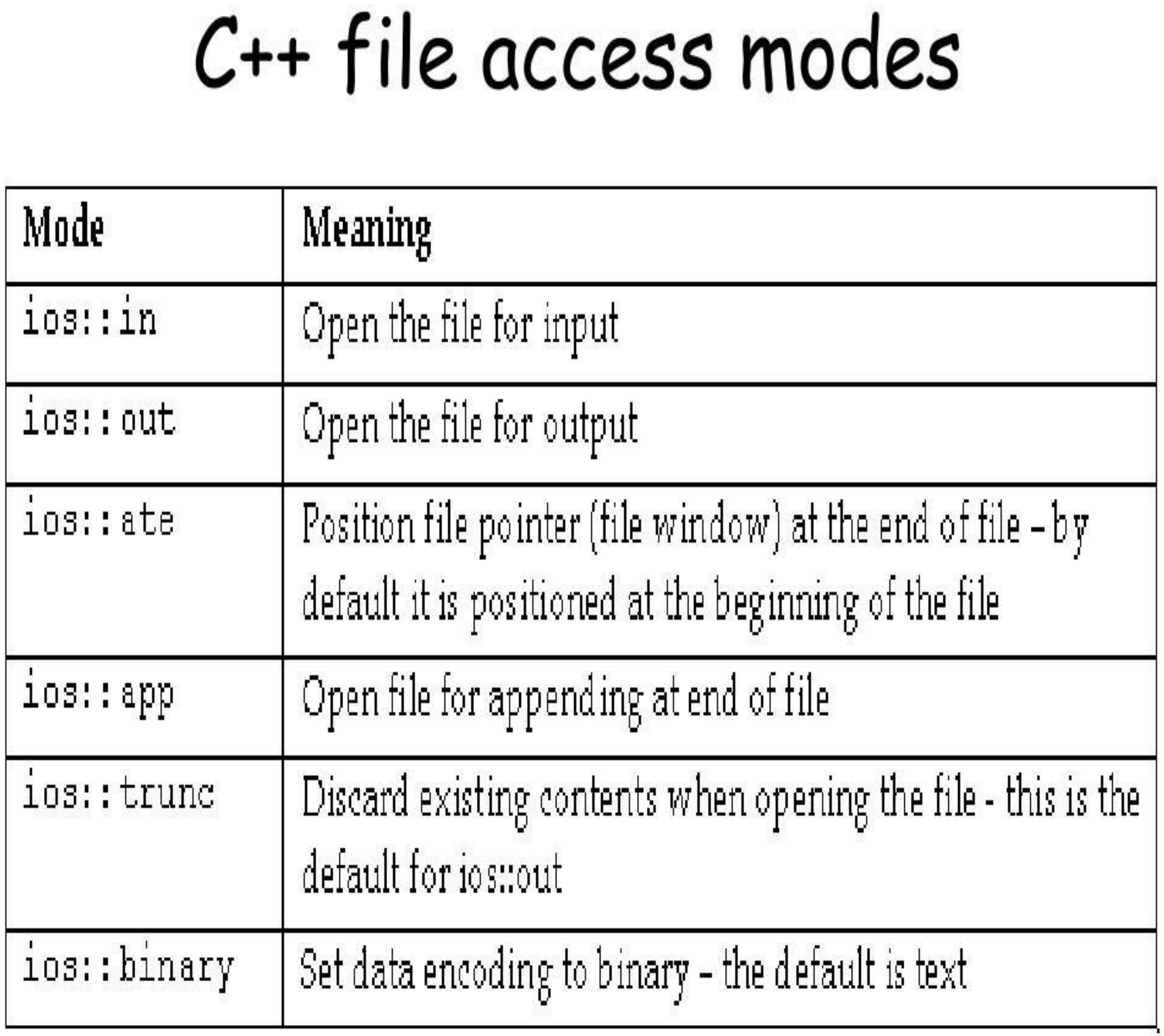
```
#include <iostream>
#include <fstream> //step 1
using namespace std;

int main()
{
      // step 2 create object to write
      ofstream file;
      // step 3 open file
      file.open("fileName.txt");
      // step 4 do operation in file
      file<<" Hello world ";
      // step 5 close file
      file.close();
      system("pause");
      return 0;
}
```

Reading from files

```cpp
#include <iostream>
#include <fstream> //step 1
#include <string>
using namespace std;
int main()
{
	// step 2 create object to read
	ifstream file;
	// step 3 open file
	file.open("fileName.txt");
	// step 4 do operation in file
	string s;
	file>>s;
	cout<<s<<endl;
	// step 5 close file
	file.close();
	system("pause");
	return 0;
}
```

File access modes



C++ file access modes

Mode	Meaning
ios::in	Open the file for input
ios::out	Open the file for output
ios::ate	Position file pointer (file window) at the end of file – by default it is positioned at the beginning of the file
ios::app	Open file for appending at end of file
ios::trunc	Discard existing contents when opening the file - this is the default for ios::out
ios::binary	Set data encoding to binary – the default is text

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

int main()
{
        fstream file;
        file.open(“fileName.txt”,ios::app);
        file<< “another sentence” <<endl;
        file.close();
        system("pause");
        return 0;
}
```

Assignment

1- Write a program that writes an integer, a floating-point value, and a string to a text file.

2- Write a program that reads an integer, a floating-point value, and a string from a text file & prints the values to the user.

3- Write a C++ program that writes your own data to a text file closes this file & then reopen the file and appends more data in it again.

THANKS!