

Assignment 3 : templates

- Create a template class named **TypeChecker** with a single template parameter **T**.
- Add a member function called **printSize** to the class. This function should output the size of the type **T** using **sizeof**.
- Instantiate the class with different types, such as **int**, **float**, **double**, and **std::string**.
- Call the **printSize** function for each instance to display the size of the corresponding type.
- Example input :

```
int main()
{
    TypeChecker<int> a;
    TypeChecker<bool> b;
    TypeChecker<double> c;
    TypeChecker<std::string> d;
    a.printSize ();
    b.printSize ();
    c.printSize ();
    d.printSize ();
    return 0;
}
```

- Output :
Size of variable : 4
Size of variable : 1
Size of variable : 8
Size of variable : 40