Lesson 47 CPP Tracing 10 (Namespace)

Dividing the code differs from one company to another, because each company has a different work environment from the other, in this lesson we will tracing a new code:

```
#include "gammal.h"
using namespace gammal_tech;
/*
calling gammal_tech namespace that exists in gammal.h
*/
void member_number() {
print("You are member:");
gammal_print(members + 1);
//calling function that exists in the namespace
}
int main() {
//1
print("hi");
//2
member_number();
//3
printf("\n\n------------------");
//4
```

```
gammal x("C");
//5
print("mt");
//6
x.membership_type();
//7
x.upgrade();
//8
gammal_print("--------------\n");
/*
1. calling print from gammal.h
2. calling the function from gammal.h
3. calling print from gammal.h
4. create instance of the class gammal
5. calling print from gammal.h
6. calling method that exists in the instance x
7. calling method that exists in the instance x
8. calling function that exists in the file gammal.h
*/
}
```

The file gammal.h :

```
#include <iostream>
```

```
#include <string>
using namespace std;
#define c(x) cout<<x<<endl
namespace gammal_tech {

long long int members = 10987283902983;
template <typename G>
void gammal_print(G g) {
c(g);
}
void print(string x) {
if (x == "hi")
c("Welcome to Gammal Tech");
else if (x == "mt")
c("Membership type: ");
else
gammal_print(x);
}
class gammal {
private:
string membership;

public:
```

```
gammal(string x) {
if (x == "C" || x == "year")
membership = x;
else
gammal_print("Error");
}

void membership_type() {
gammal_print(membership);
}
void upgrade() {
if (membership == "C")
gammal_print("upgrade to yearly membership");
else if (membership == "Year")
gammal_print("upgrade to lifetime");
}
};
}
```

output:

Welcome to Gammal Tech

You are member:

10987283902984

----------Membership type:

C

upgrade to yearly membership
