

```
#ifndef DAYTYPE_H
#define DAYTYPE_H
#include <string>

class dayType{

private:

    std::string weekDay[6];
    std::string today;
    std::string nextDay;
    std::string previousDay;
    std::string futureDay;

public:

    // constructor
    dayType();

    // destructor
    ~dayType();

    // set the day of the week
    void setDay(int);

    // set the next day
    void setNextDay(int);

    // set the previous day
```

```
void setPreviousDay(int);

// print the day of the week
void printDay();

// return the day
std::string getCurrentDay();

// return the next day
std::string getNextDay();

// return the previous day
std::string getPreviousDay();

// calculate and return the day by adding days to current day
void calculateFutureDay(int, int);

// print the future day
void printFutureDay();

};

#endif // DAYTYPE_H

#include "dayType.h"
#include <iostream>
#include <string>

using namespace std;
```

```
// constructor
dayType::dayType(){

    weekDay[0] = "Monday";
    weekDay[1] = "Tuesday";
    weekDay[2] = "Wednesday";
    weekDay[3] = "Thursday";
    weekDay[4] = "Friday";
    weekDay[5] = "Saturday";
    weekDay[6] = "Sunday";

}
```

```
// deconstructor
dayType::~~dayType(){

}
```

```
// set the day of the week
void dayType::setDay(int d){

    today = weekDay[d];

}
```

```
// set the next day
void dayType::setNextDay(int d){

    if (d == 5){
```

```

        //debug - cout << "\n why wont sunday work :( ";
        nextDay = "Sunday";

        //debug - nextDay = weekDay[6];
    }else if (d == 6){
        nextDay = weekDay[0];
    }else {
        nextDay = weekDay[d+1];
    }
}

// set the previous day
void dayType::setPreviousDay(int d){

    if (d == 0){
        //debug - cout << "\n why wont sunday work :( " << d << endl;
        previousDay = "Sunday";
        //debug - previousDay = weekDay[6];
        //debug - cout << previousDay << endl;
    }else {
        previousDay = weekDay[d-1];
    }
}

// print the day of the week
void dayType::printDay(){

    cout << today << " is the current day. \n";
    cout << nextDay << " is the next day. \n";
    cout << previousDay << " is the previous day. \n";
}

```

```

    }

    // return the day
    string dayType::getCurrentDay(){

return today;

    }

    // return the next day
    string dayType::getNextDay(){

return nextDay;

    }

    // return the previous day
    string dayType::getPreviousDay(){

return previousDay;

    }

    // calculate and return the day by adding days to current day
    void dayType::calculateFutureDay(int d, int n){

int temp = ((n % 7) + d);
futureDay = weekDay[temp];

    }

    // print the future day

```

```
void dayType::printFutureDay(){
```

```
    cout << futureDay << " is the future day. \n";
```

```
}
```

```
#include "dayType.h"
```

```
#include <iostream>
```

```
#include <string>
```

```
using namespace std;
```

```
int main(){
```

```
    int choice = 0;
```

```
    int userNumber = 0;
```

```
    cout << "1: Monday" << endl;
```

```
    cout << "2: Tuesday" << endl;
```

```
    cout << "3: Wednesday" << endl;
```

```
    cout << "4: Thursday" << endl;
```

```
    cout << "5: Friday" << endl;
```

```
    cout << "6: Saturday" << endl;
```

```
    cout << "7: Sunday\n" << endl;
```

```
    cout << "Please select enter the integer that represents the current day: ";
```

```
    cin >> choice;
```

```
    while (choice <= 0 || choice > 7){
```

```
        cout << "\nYou entered an invalid option. Please try again." << endl;
```

```
    cin >> choice;
}
choice = choice - 1;

    dayType dayObject;

    dayObject.setDay(choice);
    dayObject.setNextDay(choice);
    dayObject.setPreviousDay(choice);
    dayObject.printDay();

    cout << "\nNow enter a positive integer: ";

    cin >> userNumber;
    while (userNumber <= 0){

        cout << "\nYou entered an invalid option. Please try again." << endl;
        cin >> userNumber;
    }

    dayObject.calculateFutureDay(choice ,userNumber);
    dayObject.printFutureDay();

    return 0;
}
```

```
C:\Ohlone\CS_124\Lab_1\bin\Debug\dayType.exe
1: Monday
2: Tuesday
3: Wednesday
4: Thursday
5: Friday
6: Saturday
7: Sunday

Please select enter the integer that represents the current day: 5
Friday is the current day.
Saturday is the next day.
Thursday is the previous day.

Now enter a positive integer: 28
Friday is the future day.

Process returned 0 (0x0)   execution time : 4.511 s
Press any key to continue.
```