#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;

}

