

Classes Time/Date Inheritance

```
1 #ifndef DATE_H
2 #define DATE_H
3
4 class Date
5 { protected :
6     int day;
7     int month;
8     int year;
9     public:
10
11     Date()
12         {day=1; month=1; year=1900;}
13
14     Date(int d, int m, int y)
15         {day=d; month=m; year=y;}
16
17     int getDay() const
18         { return day; }
19
20     int getMonth() const
21         { return month; }
22
23     int getYear() const
24         { return year; }
25 };
26 #endif
27
```

This the header file date.h

```

1  #ifndef TIME_H
2  #define TIME_H
3
4  class Time
5  { protected :
6      int hour;
7      int min;
8      int sec;
9      public:
10
11      Time()
12          {hour=0; min=0; sec=0;}
13      Time(int h, int m, int s )
14          {hour=0; min=m; sec=s;}
15
16      int getHour() const
17          { return hour; }
18
19      int getMin() const
20          { return min; }
21
22      int getSec() const
23          { return sec; }
24  };
25 #endif
26

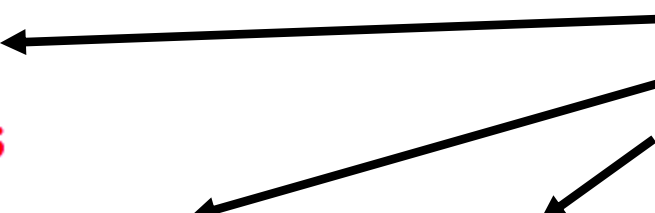
```

This the header file time.h

```
1 #ifndef DATETIME_H
2 #define DATETIME_H
3 #include <string>
4 #include "Date.h"
5 #include "time.h"
6 using namespace std;
7
8 class DateTime : public Date, public Time
9 {
10 public:
11
12     DateTime();
13     DateTime(int,int,int,int,int,int);
14     void showDateTime() const;
15 };
16 #endif
```

This the header file datetime.h

These files are included so that the class DateTime in this file knows how the classes Date and Time are defined in regards to functions and variables.



```

1 #include <iostream>
2 #include <string>
3 #include "Datetime.h"
4 using namespace std;
5 //-----
6 DateTime::DateTime() : Date(), Time()
7 {}
8
9 DateTime :: DateTime(int dy, int mon, int yr, int hr, int mt, int sc) :
10     |         |         Date(dy, mon, yr), Time(hr, mt, sc)
11 { }
12
13 void DateTime::showDateTime() const
14 { cout << getMonth() << "/" << getDay() << "/"<< getYear() << " ";
15   cout << getHour() << ":" << getMin() << "/"<< getSec() << endl;
16 }
17 //-----
18 int main()
19 {   DateTime emptyday;
20     emptyday.showDateTime();
21     DateTime pastDay(2,4,1960,5,32,27);
22     pastDay.showDateTime();
23     return 0;
24 }

```

This the main
program file
datetime.cpp

Datetime.h file is included so that the
main program to access DateTime in
this file knows how the classes Date
and Time are defined in regards to
functions and variables.