

Lab 5.3.1 Flight booking system: part 1

Objectives

Familiarize the student with:

- modelling real-world entities with classes and objects.

Scenario

Now that you're a little more familiar with classes and objects, let's pretend we're working on an airline flight booking system.

Our systems save an identification number, the capacity and the number of seats reserved for all flight bookings.

Our first job will be to print out a status report about the percentage of capacity filled.

The report should be in the form: "Flight [id] : [reserved]/[capacity] ([percentage]%) seats taken"

For now, let's not limit the number of reserved seats. We'll work on that later.

```
#include <iostream>

class FlightBooking {
public:
    FlightBooking(int id, int capacity, int reserved);
    void printStatus();
private:
    int id;
    int capacity;
    int reserved;
};

void FlightBooking::printStatus()
{
    // print report here
}

FlightBooking::FlightBooking(int id, int capacity, int reserved)
{
    // Save data to members
}

int main() {
    int reserved = 0,
        capacity = 0;
    std::cout << "Provide flight capacity: ";
    std::cin >> capacity;

    std::cout << "Provide number of reserved seats: ";
    std::cin >> reserved;

    FlightBooking booking(1, capacity, reserved);

    booking.printStatus();

    return 0;
}
```

Example input

```
100  
50
```

Example output

```
Flight 1 : 50/100 (50%) seats reserved
```

Example input

```
180  
200
```

Example output

```
Flight 1 : 200/180 (111%) seats reserved
```