

# Computer Programming

## Perl Programming Assignment #1, 2011-2012

### Brief:

You are to write a CGI program in Perl which enables a website to accept reservation input data from a client, verify that the data meets certain criteria and then displays output based on the input. The booking data will be saved to a central flat-file database. This is part of The Waterfront Hotel combined subjects project.

### Summary:

The website will contain a common input form where the visitor can specify how long they intend staying, starting from when as well as payment and other details.

When the client clicks the submit button the CGI program validates the input:

1. All details should be provided and common sense restrictions should apply.
2. The booking date should commence no earlier than the day of booking and should be for no more than 6 months into the future.
3. Only VISA credit cards are accepted.
4. The card holders name should be potentially viable.
5. The credit card number should be potentially viable.
6. The card expiry date should be potentially viable.
7. The script calculates and displays an estimated charge that will be payable. €75 per room per night.
8. The completed booking should be stored in the file ">> /home/public/hotelreservations-2011.dat"
9. Save each valid booking record as a series of fields (even if empty) separated by double hash marks (##) as the delimiter.
10. Separate each record in the database by an EOL
11. The first field in the record should be your username
12. The script should send email to send to the person making the reservation

Restrictions on reservations include the following:

1. All rooms are family rooms with a double bed, a single bed and pull-out single bed/sofa.
2. Maximum occupancy per room is 4.
3. Bookings of children (and in rooms unsupervised) only are not acceptable.
4. A ratio of adults to children of not less than 1:3 should be enforced.

Faults will be flagged and handled appropriately; the email that would normally go to the booking party would be sent to you so that you can confirm the functioning of the system.

### Presentation:

Marks are awarded for attractive presentation both of the screen output and the source code. Code indentation and commenting are **vital**. Script output should be good, valid HTML.

### Submission Mechanism:

By paper via the submission box in Room 15, and by e-mail. Include:

- Cover sheet ('My Own Work')
- Flow chart (Read the programming website for information).
- Source code (The perl program, printed)
- Sample data used (copies of the sample emails)
- Other screen capture(s) as required

Any other relevant supporting materials.

### Due Date:

**2011221, 12:45, Wednesday**  
(subject to on-line Calendar changes)