Computer Programming

Perl Programming Assignment #2, 2008-9

Brief:

You are to write a CGI script in **perl** which processes previously entered reservation data. The reservation data is saved in a central flat-file database. Complete as many as you can of the requested functions.

Summary:

The script will have 6 obvious* functions, depending on the action selected on the input form.:

1. Duplicate the central database into a personal copy file for later tasks.
2. 'Cleanse' the personal copy of the database of invalid reservation data. The central file will have contained errors both accidental and deliberate.
3. Retrieve reservations from the personal copy file by booking name.
4. Retrieve reservations from the personal copy file by the email address of the person who made the booking.
5. Retrieve reservations from the personal copy file by the date of intended arrival (the 'today' option).
6. Generate statistics on the booking numbers, estimated bed-nights, income, *etc* using data from the copy file.

As not everyone will have satisfactorily or fully completed the first programming assignment, upon which this is based, a perl program will be available to generate sample bookings as required. In this way, no disadvantage from failure to complete the first assignment will carry forward into the second. The source code of this program will be publicly available.

Presentation:

Marks are awarded for attractive presentation both of the screen output and the source code. Code indentation and commenting are ***vital***.

Submission Mechanism:

- By paper via the submission box in Room 15, and by e-mail (**the perl script only**). Include:
  - Cover sheet ('My Own Work')
  - Flow chart (Read the programming website for information).
  - Source code (The perl program, printed, colourised)
  - Other screen capture(s) as required
  - By email: Copy your program into a file with a **.pl.txt** extension, attach and email that file to **fachtna@roe.ie**

  Any other relevant supporting materials

- *and/or* **NB Electronic submission of a full valid assignment, complete with all elements as described above, in a single PDF file will earn a 10% marks bonus NB. Use the scanner!**

Due Date:

> ### 20090313: 12:45 paper, 21:00 on-line.
> ### (subject to on-line Calendar changes)

NOTE: A common HTML input form is provided which should be customised before use.

Comparative sample data: From the sample input file **comparative-2009.dat**, containing **250000** records your script should find **8375** valid records, calculate **45062** adults, **36270** children**,** occupied days of **54049** and bed-nights of **525013**, with a predicted income of **EUR6647798**. *These values are offered as a guideline and may themselves be erroneous...!* Please notify if you find significant errors in these estimates. *These values may be changed as a result of corrections made to the benchmark script.*

* Please ask about the non-obvious function (implied in the HTML assignment spec.)