



Award: *International Advanced Diploma in Computer Studies*

Module Title: *Advanced Java*

Assignment Title: *Holiday Insurance*

Examination Cycle: *June 2009*

Candidate Name:

**NCC Education
Candidate No:**

Submission Date:

Important Notes:

- ❖ Please refer to the Assignment Presentation Requirements for advice on how to set out your assignment. These can be found on the NCC Education *Campus*. Scroll down the left hand side of the screen until you reach Personal Support. Click on this, and then on Policies and Advice. You will find the Assignment Presentation Requirements under the Advice section.
- ❖ You must familiarise yourself with the NCC Education Academic Dishonesty and Plagiarism Policy and ensure that you acknowledge all the sources which you use in your work. The policy is available on *Campus*. Follow the instructions above, but click on Policies rather than Advice.
- ❖ You must complete the '**Statement and Confirmation of Own Work**'. The form is available on the Policies section of *Campus*. Scroll down the left hand side until you reach Personal Support. Click on this and then click on Policies and Advice.
- ❖ Please make a note of the recommended word count. You could lose marks if you write 10% more or less than this.
- ❖ You must submit a paper copy and digital copy (on disk or similarly acceptable medium). Media containing viruses, or media which cannot be run directly, will result in a fail grade being awarded for this module.
- ❖ All electronic media will be checked for plagiarism.

Marker's comments:

Moderator's comments:

Mark:

**Moderated
Mark:**

**Final
Mark:**

Introduction

When arranging a holiday it is wise to also arrange some holiday insurance. An important aspect of this insurance is cover against accidents to the person and health. Health cover is often quite difficult to obtain for the elderly and those with existing medical conditions. In addition, it would be wise to cover for loss of cash, credit cards, travel delays, damage to baggage and many other unfortunate circumstances.

There are many insurance companies that provide information about their policies via the Internet. Moreover, they provide interactive web pages that allow the user to obtain a quotation for the holiday insurance cover that he or she might require. As part of your assignment is to design and implement such an interactive web page then it would be sensible for you to browse various relevant web sites to determine the range of criteria with which they deal.

There is much more to such an interactive web page than the user interface. When you are browsing such sites then it will become obvious that behind any web page there has to be one or more databases and several calculation based algorithms. For example, the premium for health cover will depend upon age, sex, medical history, holiday destinations, length of holiday, whether certain sporting activities are anticipated whilst on holiday and many other considerations. Behind each of these considerations will be stored information that will be referenced by the web page and finally, a calculation will be performed to arrive at a premium.

The insurance companies are likely to want to collect information about the queries that have been made via their web site. Reasons for doing this include the facility to advertise directly to potential customers and to be able to analyse customer queries to ascertain if their products need to be modified to meet the market.

NOTE: before storing any personal information about a user of a web page then the user's permission must be obtained.

Aim

To design, implement and test one or more interactive Web Applications using the facilities of JAVA.

These applications are to provide the means by which the user could obtain a premium quotation for holiday insurance cover. As this is an exercise it is not expected that your application would be comprehensive but, as a guide to you, provide about SIX distinct insurance risks from which the user can select.

Design a suitable database that drives the quotation web page. Populate this database with suitable test data.

Design a database whose purpose is to collect information about the nature of the queries made via the web application.

Provide automatically, on a regular basis, a report for the management of the insurance company giving a summary of the queries made via the web form(s).

Task 1 – 25 Marks

Design suitable web pages for obtaining holiday insurance quotations.

Include in your design the algorithms required for:

- Comprehensive data validation.
- Processing the combined options that the user might require.
- Collecting the web page(s) response information required by the management for the insurance company.

Task 2 – 12 Marks

- Design the database required to drive the user options provided by your design in Task 1.
- Set up the structure of this database using a suitable relational database system.
- Design suitable test data and use it to populate the database that you have just set up.

Task 3 – 5 Marks

- Design the database required to collect the web page(s) response information required by the management for the insurance company.
- Set up the structure of this database using a suitable relational database system.

Task 4 – 30 Marks

Implement and test the design you detailed in Task 1.

Task 5 – 12 Marks

Design, implement and test a separate Java project to produce a report for management from the database designed in Task 3.

NOTE: You will have to populate this database by applying carefully selected web page(s) queries to your working main project.

Task 6 – 10 Marks

- System test the final system.
- The evidence of this testing must include screen shots.

Task 7 – 6 Marks

Produce a working copy of a compiled version for both your main and subsidiary systems together with some installation notes.

- This working copy should be on an appropriate medium (DVD, zip disk, CD-ROM etc.).
- The installation notes should include the system requirements e.g. the operation system.

Guidance

The assessment of your project will to a large extent depend upon the quality of the documentation that you have produced. Thus, for **each stage** of the development of software:

- Give a detailed design including, where appropriate, the design of any algorithms.
- Build in error handling to involve meaningful messages that would ease any future maintenance of the software.
- Annotate all implementation.
- Design a testing strategy.
- Justify the design of suitable comprehensive test data.
- Show evidence of testing.
- Where appropriate, detail any major remedial action that you have taken in the light of the testing process.

In addition produce evidence that the user interface is likely to be understood by users.

For the completed project:

- Evidence of the testing of the project as in integrated piece of software.
- A short installation guide to include hints on troubleshooting.

Submission Requirements

A word-processed document incorporating the full documentation of each of the **SEVEN** tasks detailed above.

Refer to the Guidance Notes above when producing your final documentation.

Note the requirement in **Task 7** to submit a working copy of the compiled software.

Warning: All media must be virus free!

Media containing viruses, or media which cannot be run directly, will result in a FAIL grade being awarded for this module.

You must read and understand NCC Education's policy on 'Academic Dishonesty and Plagiarism'.

You must complete the 'Statement and Confirmation of Own Work' form and attach the completed form to your assignment.