



INTERNATIONAL ADVANCED DIPLOMA
IN
COMPUTER STUDIES



**MODULE:
ADVANCED VISUAL BASIC**

**ASSIGNMENT TITLE:
APPEAL FUND**

DECEMBER 2009

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:

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Introduction

As a result of a massive natural disaster, many people and whole communities have suffered great losses.

An International Aid Organisation is launching a worldwide appeal fund by which individuals can make contributions of money.

In order to collect contributions to the fund, the aid organisation needs a suitable Web Site interfaced to a database.

One purpose of the database is to store the details of each contributor and their contribution to enable the:

- Extraction of the money given from the defined source e.g. Credit/Debit Card Company; bank account
- Building of a contact list of contributors by requesting email addresses, with the proviso that the contributor has the option not to be included in this list.

As each donation is received, it needs to be banked in a designated account in American Dollars. As a donation could come in any currency it is necessary to convert it to American Dollars at the current exchange rate when the donation is received. This will be achieved by using an appropriate Web Service. (See Note 4)

In addition it is necessary to verify the email address given by a donor. Again this will be achieved with an appropriate Web Service. (See Note 4)

The Web Site of the International Aid Organisation will include a page to report on where the money has been allocated. Thus a second purpose of the database is to record the details of allocations of monies to organisations who distribute aid to enable the:

- Generation of regular reports of the state of the fund
- Inclusion in reports of the total sums contributed by countries and the total sums allocated to aid distributors.

Aim

Your assignment is to produce **part** of the system required. You are **not** concerned with the actual process of contacting Credit Card Companies/Banks or with the mechanisms of transferring funds to an aid distributor.

The database will need at least three Tables to include:

- **All Contributions:** Details of every contribution made via the Web Site.
- **Contactable Contributors:** Details of contributors who are happy to be contacted.
- **Distributions:** Details of funds allocated.

The Web site should consist of a number of dynamic Web Pages including:

- **A home page**
- **A Page for Contributions**
- **A Page for requesting and displaying a report**

Notes for Design and Implementation

1. Those who have used previous versions of Visual Basic may expect to have to have installed IIS on their computers to enable them to 'run' the Web Sites they have created in VB 2005.

This is no longer necessary.

With VB 2005 the **ASP.NET Development Server** is installed automatically.

This server will handle, for testing purposes, VB 2005 programmed Web Site Objects.

2. To develop multi-form Web Sites, additional Web Form Objects will have to be added to the Web Site Object.
Select 'Website' menu item then select 'Add New Item'.
3. Navigation between Web Form Objects can be achieved by such program code as:
Response.Redirect("frm2Bjj.aspx")
4. The data validation required for the Contributions user interface will require the programming of a Web Service to perform currency conversions and another Web Service to verify email addresses.
To obtain these Web Services use the **WSDL Schema Locations**:
<http://www.webservices.net/CurrencyConvertor.aspx?WSDL>
<http://www.webservices.net/ValidateEmail.aspx?WSDL>
(Other interesting, and free Web Services, can be found at:
<http://www.webservices.net/WS/wscatlist.aspx>)
5. The contents of the database table **Contactable Contributors** must not be viewable via the Web Site. This is to be accessible only by the database manager and you will have to provide a secure form to do this.
6. Entries into the database table **Distributions** are to be achieved via another secure screen that you will have to provide.
7. All Web Form Objects must generate their own remedial help comments (error trapping) as warranted by the user's actions.
8. Web Form Objects will require interaction with datasets derived from the database.

Task 1 – 15 Marks

Design the database structure required for this application.

Using either Microsoft Access or SQL Server, set up a database for this application.

Task 2 – 30 Marks

Design the user interfaces of the Web Forms that correspond to the Web Pages named in the introduction.

These designs must include the design of the entire event and other procedures, including all data validation that will be necessary to implement the system.

Task 3 – 35 Marks

Implement and test the designs produced in Task 2.

Task 4 – 15 Marks

Design a strategy for testing the complete system; produce suitable test data; carry out the tests and produce evidence of testing to include appropriate screen shots.

Task 5 – 5 Marks

Produce a publishable working copy of a compiled version of the completed assignment together with some installation notes. The installation notes should include the system requirements.

This publishable copy, that includes a setup file, should be on an appropriate medium (CD-ROM, DVD etc.).

Although the recommended textbook gives adequate coverage of the fundamentals of VB 2005 any particular assignment may require candidates to investigate other aspects of the language by using the Help facility provided by the Integrated Development Environment of VB 2005.

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 choice 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.

Submission Requirements

A word-processed document incorporating the full documentation of each of the FIVE Tasks detailed above. The document should be submitted both in paper form and digital form on a disk.

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

Note the requirement in Task 5 to submit a publishable copy of the compiled system.

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.

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your assignment.**