ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD

(Department of Computer Science)

Course: E-Commerce Applications (3522)   **Semester: Spring, 2014**
Level: Post Graduate   **Total Marks: 100**

ASSIGNMENT No. 1

Note: All questions carry equal marks.

Q. 1 Let us consider that **ABC** is a well renowned consultant company among universities and colleges that provide consultations on academics and also the designing services of syllabus and courses for universities and colleges.

Mr. Tahir Ayub is the CEO & web officer in **ABC**, who visits websites of different universities to get idea of their courses, programs and syllabus. Let's say that for the purpose of getting idea of courses and syllabus, he plans and tries to visit the Website of Virtual University of Pakistan and gives the domain name **IT222.cs.vu.edu.**

When he gives Domain name, the hierarchy of special computer machines called Domain Name Servers translates or resolves a fully qualified domain name into its IP. This includes number of steps and involvement of different servers. i.e. Root Name Server, the University's Name Server and the name server of the department. Hence in number of steps the fully qualified domain name is completely translated into the IP address of the web server where the requested web page is stored.

Q. 2 Let's say that **Mr. Tahir Ayub** has his own internet provider company named **ABC**. He also provides maintenance services to small and large networks i.e. LAN and WAN. **Mr. Tahir** had applied for the membership of a local well reputed company. In an interview, for membership, he has given very simple task of making a network of ten computers and a switch. Which network you think is best for the above scenario, also give reasons of choosing the network based on resources and advantages etc.

Q. 3 One of your customers complains about the delivery of goods that he claims he did not order.
  a) What is needed to establish that a contract actually existed?
  b) What other information is useful to keep about your customers, and what could you use it for?
  c) Describe some of the problems of anonymous payment schemes such as digital cash. Where might they be useful?

d) What recourse would the customer have if she had paid using such a system, and how would you detect whether such a complaint was fraudulent?

Q. 4 A new start-up company proposes to develop an electronic wallet, a device that can cryptographically hold electronic money, data, credit card numbers etc. Such a device might, for example, be included in a mobile phone.
a) Explain how network externalities affect the introduction of such a device.
b) Explain some of the legal and regulatory issues affecting such a device.
c) Sketch out the back-end processing and infrastructure that would be needed to support such a device.
d) Would such a device increase the overall security of a transaction? Justify your answer.

Q. 5 Imagine you have written a programme that you want to commercialize.
a) Outline a design for a website for the wider dissemination and/or sale of the programme. Actual HTML is not required, nor details of the programme. Your answer should include:
   i) Elements of the business model, and a description of any mechanism or legal framework needed.
   ii) A high level site map. Outline any special features, such as registration, tracking or subscriptions that you will need to implement.
   iii) A sketch of a typical page. Explain any features you use to enhance performance.
b) How could you market the site and drive traffic to it?

ASSIGNMENT No. 2

Total Marks: 100

All questions carry equal marks.

Q. 1 A company proposes to introduce a new e-mail service, one with a small postage charge for each message. It is believed that by charging for each message sent the amount of spam will be reduced. The response rate for spam is about 0.005%, that is about five in a hundred thousand messages elicit a positive response.
a) Estimate a price that might economically discourage spam.
b) Describe approaches to handle the micro-payments involved.
c) What is meant by a network externality, and how might it be overcome in this case?
d) The postage charges might be credited to the recipient, less a handling fee. Describe a mechanism for this.

Q. 2 When designing an interactive web site, describe five desirable stylistic points. Also discuss the advantages and disadvantages of showing stock levels on a commercial site.

Q. 3 A certain Pakistani firm proposes to sell camera lenses online via a website. Identify two major regulatory regimes applicable, and give examples of the steps required to comply with them.

Q. 4 It is said that the Internet played a significance role in the Pakistan election. You are asked by a major Pakistani political party to advise them on their Internet policy and associated website. The party has about 50,000 members, each paying a fee of Rs.2500 per annum. Its total annual income, mainly from donations, is about Rs. 1 Million. Pakistan has about 46 million people registered to vote. There are about 646 parliamentary constituencies.

    a) Describe in brief bullet points the key elements of your proposed Internet strategy.
    b) Draw an outline block diagram of the architecture that would be needed.
    c) Make and justify some estimates of the size and cost for its implementation.
    d) Outline relevant regulations.

Q. 5 You decide to offer an online e-commerce course. The target sales price is Rs. 1000.

    a) How will you market and promote the course online?
    b) How will you monitor your marketing campaigns?

E-COMMERCE APPLICATIONS (3522)

Recommended Book:
The E-Business (R) Evolution by Daniel Amor

Course Outlines

Unit–1 Introduction to Internet Business
    a) Internet and Online Business
    b) Defining E-Business
    c) Reasons for Going Online
    d) Differentiating between E-business Categories
    e) Using the New Paradigm of E-business

Unit–2 Preparing the Online Business
    a) Competitor Analysis on the Internet
    b) New Channel
    c) Paradigms in the New Economy
    d) Driving Business Process Re-engineering
    e) Designing, Developing, and Deploying the System

Unit–3 Selecting the Technology for E-business
    a) Internet Networking
    b) Exploring the IT Infrastructure
    c) Deciding on the Enterprise Middleware
    d) Choosing the Right Enterprise Applications
    e) Building the E-business Applications

Unit–4 Legal Issues
    a) Global Contracts
    b) The Web Site

c) Encryption Algorithms
d) Crisis Management

Unit–5 **Marketing Strategies on the Web**
a) Internet Marketing Technologies
b) Web-Design
c) Attracting Visitors to your Site
d) Virtual Societies and Localization
e) Promoting Your E-business
f) Banner Ad Campaigning
g) Online Measurement
h) One-to-One Marketing
i) Direct Marketing
j) Choosing the Right ISP

Unit–6 **Search Engines and Portals**
a) Searching the Internet
b) The Future of Searching
c) Intelligent Network Agents
d) Portal Sites, the New All-in-One Mega Web Sites
e) Electronic Software Distribution
f) On-line Resources Management

Unit–7 **Interactive Communication and Security Issues**
a) Internet Group Communications
b) Internet-Based Trainings
c) Finding the Right Browser
d) The Hypertext Markup Language
e) Web Application Servers
f) Creating a Security Strategy
g) Fighting Virus and Hoax Virus Warnings

Unit–8 **Payment System Overview**
a) The Payment Business
b) Post-paid Payment Systems
c) Instant-paid Payment Systems
d) Pre-Paid Payment Systems
e) Comparing Payment Technologies
f) The Future of Payment

Unit–9 **Case Study**
The students in groups select a case study after unit 5. They may develop the E-Business solution. The teacher is requested to provide them guidance in developing a case study. The report shall be submitted to teacher and presentation in the class shall be organized.

========