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**TUNKU ABDUL RAHMAN UNIVERSITY COLLEGE**

FACULTY OF COMPUTING AND INFORMATION TECHNOLOGY

BAIT2133 WEB ENGINEERING

TUTORIAL 1

**Answer all the questions:**

1. Explain the term Web Apps.

A web application is a software application that runs on a remote server. In most cases, Web browsers are used to access Web applications, over a network, such as the Internet. Some web applications are used in intranets, in companies and schools, for example. Web applications are different from other applications because they do not need to be installed.

1. List and describe the characteristics of Web Applications.

**Evolve constantly**

As per the changes in requirements there occurs some changes or improvement in the web application. This evolution may concern all the other three characteristics product, use and development. Market competition or other factor may cause the changes and evolve.

**Deployed on different devices**

User can use web application on different devices such as mobile, computer and tablet as long as there has internet connection.

**Complex**

Uses cutting edge, diverse technology , standards, integrate different components.

1. Define the term Web Engineering.

Focuses on the methodologies, techniques, and tools that are the foundation of Web application development and which support their design, development, evolution, and evaluation

1. Discuss the motivation of Web Engineering.

The need to use the methodologies / norms / best practise guidelines in designing applications that are timely, budgetarily delivered, are of high quality and easy to manage increases as reliance is increased on larger and more challenging Web applications. T he Development teams need to use sound methodologies, structured methods, quality assurance, thorough, thorough and repeated procedures, better resources and baselines to create such applications.

1. Analyze the effects of web application’s evolution.

Most web based applications are far more compatible across platforms than traditional installed software. Typically the minimum requirement would be a web browser of which there are many. (Internet Explorer, Firefox, Netscape to name but a few).Web based applications can dramatically lower costs due to reduced support and maintenance, lower requirements on the end user system and simplified architecture.

1. Discuss *THREE (3)* challenges in developing Web Application.

**Choosing the right tech stack.** Make sure to choose a tech stack that has thorough documentation. It’s almost inevitable that you’ll run into a troubleshooting problem at some point during development. Great documentation and support can save you time, money and hassle.

**User Interface design.** Great UI design certainly makes your application visually appealing, but it goes beyond just simple aesthetics. The goal is to make the actual user experience simple and accessible – and usable. This means using only a targeted, purposeful selection of copy and content, making clear the options your users have throughout the experience and ensuring information is readily available at each step.

**Scalability .**The challenge of scalability relates to how you want your application to develop over time. If you want your application built right today, you’ll need to know as much as possible about what you need it to do in the future.Planning for scalability helps you manage different user types, handle increased traffic, and an expansion of, for example, an ecommerce shop. Overall, it’s valuable to prioritize scalability because it can improve your user experience, fulfill your business goals and extend the lifespan of your application.

The director of 998 Fast Mart has approached you in creating a web application for e-commerce purpose. You have decided to apply Web Engineering (WEBE) framework for the development. Justify to the director on *THREE (3)* benefits of applying WEBE framework.

The rapid build of basic website components and ease of customisation leads to large-scale time and cost savings.Web frameworks provide many typical website components right out of the box, such as user management functionality – which might otherwise take months of custom development to build. A widely used framework has big security implementations. The big advantage is the community behind it, where users become long-term testers. If you find a vulnerability or a security hole, you can go to the framework’s website and let the team know so they can fix it.

7.Briefly explain what WebE framework is.

A framework is a set of activities that will always be performed for every Web engineering project – though the nature of the activities might vary to suit the project.