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**ICTWEB501**

**Task 1**

**Student ID:** 83126277

Question 1: Explain the principles of analysis and design.

**ANSWER**

**Analysis:** The purpose of analysis is to determine the direction and the goals of a project and to create the appropriate documentation to be reviewed by the stakeholders.

The main focus of analysis is to gather the business requirements until what the system should do has been defined without any room for ambiguity and in high detail.

The formal process to gather requirements goes through 4 steps which can be re-iterated.

1. Elicitation – The analyst ask questions, the stakeholder talks, the analyst listen.
2. Validation – The analyst analyzes and asks for follow-up questions.
3. Specification – The analyst documents and ask follow-up questions.
4. Verification - Analyst and stakeholders reach an agreement.

**Design:** It defines how to build the system. Tools, technologies and architecture are all decided during design. Once the best solution has been chosen beteen all the alternatives, a precise logical plan is created to detail how to build the system in all of its components.

Question 2: rewrite the following syntax by using PHP

|  |
| --- |
| int time = 20;  if (time < 18) {  System.out.println("Good day.");  } else {  System.out.println("Good evening.");  }  // Outputs "Good evening." |

|  |
| --- |
| for (int i = 0; i < 5; i++) {  System.out.println(i);  } |

**ANSWER:**

|  |
| --- |
| <?php  $time = 20;  if ($time < 18) {  echo "Good day.";  } else {  echo "Good evening.";  }  ?> |

|  |
| --- |
| <?php  for ($i = 0; $i < 5; $i++) {  echo $i;  }  ?> |

Question 3A: What kind of websites (with example) are using the following authentication and web security.

1. Tokens
2. HTTP Basic Authentication
3. One-Time Passwords

**ANSWER**

1. Tokens are used by banks websites

<https://www.commbank.com.au/>

1. HTTP Basic Authentication is used by pretty much everything (eg. e-commerce).

<https://www.bikesociety.com.au/>

1. One-Time Passwords are again used by banks, together with PIN (eg. Money transfer).

<https://www.commbank.com.au/>

Question 3B: Compare HTTP Request Methods - GET and POST below.

|  |  |  |
| --- | --- | --- |
|  | GET | POST |
| For sending non-sensitive data | No | Yes |
| The data is visible / invisible to everyone in the URL | Visible | Invisible |
| Parameters saved in browser history | Yes | No |
| Can be bookmarked | Yes | No |
| Can be cached | Yes | No |

Question 3C: Explain the PHP Sessions in your own words and provide 2 examples.

**ANSWER**

A php session is a way to store a client data on the server side, to allow for a better, more personalised experience for a user when accessing a website. A session can be started and destroyed, and a timer can also be setup to keep it active for a determined amount of time.

Session can be accessed by using the reserved keyword $\_SESSION. They are especially useful for stateful websites that require to keep trace of a user interaction (e.g. e-commerce websites).

session\_start(); 🡪 Start new session or resume existing one.

$\_SESSION[“favitem”] = “”; 🡪 Set a session vaiable named favitem.

if( isset( $\_SESSION[‘counter’] )) {

$\_SESSION[‘counter’] += 1;

} else {

$\_SESSION[‘counter’] = 1

} 🡪 Check is a session variable named counter is set already and increase the number by one if it does. Can be useed to keep track of how many times a user visits a page during a session.

Session\_destroy(); 🡪 Destroy the session.

Question 3D: Compare Stateless and Stateful Programming in your own words.

|  |  |
| --- | --- |
| **Stateless** | **Stateful** |
| One-off process that ends once the service is delivered. The result of the proces doesn’t affect future interactions. | The server keeps track of the user’s actions and the content is personalized accordingly. |
| Simple and very quick. Information is requested and sent. Nothing else is required. | Information are stored on the server through the adoption of session management strategies. |
| No stored knowledge of past transactions | Operations are performed always in the context of previous transactions. |

# **Unit Assessment Result Sheet (UARS)**

## **Assessment Task 1 – Unit Knowledge Test (UKT)**

## **Student and Trainer/Assessor Details**

|  |  |
| --- | --- |
| **Unit code** | ICTWEB501 |
| **Unit name** | Build a dynamic website |
| **Outcome of Unit Assessment Task (UAT)** | |  | | --- | | **First attempt:** |   Outcome (please make sure to tick the correct checkbox):  Satisfactory (S)  or Not Satisfactory (NS)  Date: \_\_\_\_\_\_\_(day)/ \_\_\_\_\_\_\_(month)/ \_\_\_\_\_\_\_\_\_\_\_\_(year)   |  | | --- | | **Second attempt:** |   Outcome (please make sure to tick the correct checkbox):  Satisfactory (S)  or Not Satisfactory (NS)  Date: \_\_\_\_\_\_\_(day)/ \_\_\_\_\_\_\_(month)/ \_\_\_\_\_\_\_\_\_\_\_\_(year) |
| **Feedback to Student** | |  | | --- | | * **First attempt:** |  |  | | --- | | * **Second attempt:** | |
| **Student Declaration** | * I declare that the answers I have provided are my own work. Where I have accessed information from other sources, I have provided references and or links to my sources. * I have kept a copy of all relevant notes and reference material that I used as part of my submission. * I have provided references for all sources where the information is not my own. I understand the consequences of falsifying documentation and plagiarism. I understand how the assessment is structured. I accept that all work I submit must be verifiable as my own. * I understand that if I disagree with the assessment outcome, I can appeal the assessment process, and either re-submit additional evidence undertake gap training and or have my submission re-assessed. * All appeal options have been explained to me. |
| **Student Signature** |  |
| **Date** |  |
| **Trainer/Assessor Name** |  |
| **Trainer/Assessor Declaration** | I hold:  🗹 Vocational competencies at least to the level being delivered  🗹 Current relevant industry skills  🗹 Current knowledge and skills in VET, *and undertake*  🗹 Ongoing professional development in VET  *I declare that I have conducted an assessment of this candidate’s submission. The assessment tasks were deemed current, sufficient, valid and reliable. I declare that I have conducted a fair, valid, reliable, and flexible assessment. I have provided feedback to the above-named candidate.* |
| **Trainer/Assessor Signature** |  |
| **Date** |  |
| **Office Use Only** | Outcome of Assessment has been entered onto the Student Management System on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (insert date)  by (insert Name) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |