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| Student Name | Kyle Kent | | Student Number | | 4655101039 |
| Unit Code/s & Name/s | ICTPRG504 Deploy an application to a production environment | | | | |
| Assessment Name | Class Test | | Assessment Task No. | | AT2 |
| Date of test/exam | 2 / 11 / 2018 | | | | |
| **Student Declaration:**  I declare that this assessment is my own work. I am aware of and understand the rules related to assessment as outlined in TAFE Queensland Student Rules and acknowledge that failure to comply with these rules will be regarded as misconduct and will be subject to disciplinary action as outlined. | | | | | |
| Student Signature | K Kent | | | Date | 19/11/2018 |
| Assessor Feedback:  Student provided with feedback *(check box when completed)* | | | | | |
| Attempt 1 | Satisfactory | Unsatisfactory | | Date | / / |
| Attempt 2 | Satisfactory | Unsatisfactory | | Date | / / |
| Assessor Name |  | Assessor Signature | |  | |
| Note to assessor: Please record any reasonable adjustment below that has occurred during this assessment. E.g. written assessment given orally; scribe provided. | | | | | |
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| **PRIVACY DISCLAIMER:** TAFE Queensland is collecting your personal information for assessment purposes. The information will only be accessed by authorised employees of TAFE Queensland. Some of this information may be given to the Australian Skills Quality Authority (ASQA) or its successor and/or TAFE Queensland for audit and/or reporting purposes. Your information will not be given to any other person or agency unless you have given us written permission or we are required by law. | | | | | |

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| Assessment rules | Only students enrolled in the unit of competency, the Assessor / Supervisor, and other authorised personnel may enter or remain in the room during a written test / exam. The Assessor/ Supervisor may ask you to produce photographic identification (e.g. student ID card, driver’s licence).  Unless approved by the Assessor / Supervisor prior to the written test / exam (e.g. for open-book exams) you may not bring any devices capable of conveying information relevant to the content (e.g. text books, course notes, mobile phones, pagers, notebook computers, and other devices). You must ensure mobile phones and other electronic devices are turned off prior to the commencement of the written test / exam.  You are required to comply with all directions:   1. Detailed in assessment material supplied; 2. Set out on any notice displayed in the room; and 3. Given by the supervisor.   During a written test / exam session you may not:   1. Communicate with any person other than the supervisor; 2. Assist another person to communicate with another person; and 3. Willingly receive communication from any person except with the approval of the supervisor.   Unless permitted by the supervisor, you may not take from the room any papers or other materials provided for use during the written test / exam.  You are expected to be considerate of other students when entering or leaving the room or when in the vicinity of the room.  If you consider that your performance in the written test / exam has been adversely affected by illness, disability, bereavement or other exceptional circumstances you may apply for special consideration. **For more information, refer to the Student Rules.** |

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| Instructions to Student | **Number of Questions:** 5  **Time Allowed:** 4 hours  **Examination Conditions:**  This is a closed book examination; All questions must be attempted.  **Materials to be supplied:**  Examination paper.  **Materials to be supplied by the Student:**  Paper for recording answers.  **General Instructions:**  You are required to answer each of the questions provided. You must use a black or blue pen to provide answers, not pencil. Sketches, however, may be in pencil.  **Calculators:**  Calculators may be used during this examination. Before the examination commences, all memories must be fully cleared and programs erased.  **Number of Attempts:**  You will receive up to two (2) attempts at this assessment task. Should your 1st attempt be unsatisfactory (U), your teacher will provide feedback and discuss the relevant questions with you and will arrange a date your 2nd attempt. If your 2nd attempt is unsatisfactory (U), or you fail to attend the scheduled date for a 2nd attempt, you will receive an overall unsatisfactory result for this assessment task. Only one re-assessment attempt may be granted for each assessment task, with the exception of Apprentices or Trainees who are permitted an additional supplementary assessment. **For more information, refer to the Student Rules.** |
| Instructions for the Assessor | This is a closed book examination.Remind students of TAFE Queensland Student Rules assessment requirements. |
| Submission details | Students are to submit written answers to the teacher at the end of the exam. |
| Note to Student | An overview of all Assessment Tasks relevant to this unit is located in the Unit Study Guide. |

Answer the following in paragraph or dot-point format in roughly 100 words per question:

1. List and describe the main features of database management systems.

Database management systems allow developers to control and manipulate data by grouping certain data.

There are 4 types of database management systems:

1. Navigational DBMS, which is a network DBMS with hierarchal tree structure.

2. Relational DBMS, predefined data with relations between data.

3. SQL DBMS, DBMS that uses SQL or MYSQL.

4. Object Oriented DBMS. A DBMS that uses objects to manipulate its data.

1. In a small to medium sized enterprise where there is no in-house database administrator, who will be responsible to perform database installation. What other issues need to be considered during the database installation?

When there is no in-house database administrator, database installation is performed by the system administrator in collaboration with all developers. Before you even start database installation, you must plan extensively diagrams and documentation discussing the database and its design must first be done to ensure the database performs as intended. Then, before installing the database, the type of database your are installing muse be considered as this will affect the entire installation process.

1. Applications depend on a number of layers and/or facilities to be in place on a network or computer system in order to run. With reference to this, describe how each of the following impact on the deployment of an application:
2. A network.

A network allows IT employees to connect to each other and work in-sync, greatly improving teamwork, cohesion and effectiveness.

1. IT hardware.

IT hardware describes all hardware within an IT industry such as computer hardware, servers, modems, etc. While some of this hardware is not necessary, it allows IT employees to work much more efficiently.

1. Operating\_system.

Operating systems are a prerequisite to the design of software, they allow IT employees to use computer systems. Without them, designing software would be impossible.

1. Security protocols of the production environment.

Security protocols dictate how employees in IT environments use resources safely and effectively. This ensures the best possible efficiency while maintaining safety.

1. When writing code or scripts for deploying your application to a production environment, what are the components that you will need to consider in order for it to be ready for the end-users?

Software rules such as client-server rules must be considered in the code. The design environment must also be considered. If the project was designed on a Windows Operating System there maybe problems with the project when run on any other type of operating system. Client privileges and server permissions must be designed securely to ensure no unauthorized access to files or data.

1. Why is it important to know the policies, procedures and security protocols of an organisation when deploying software?

Policies, procedures and security protocols can affect the design of software drastically. These things must be studied and understood before development of software can be done. When developing for an organisation you must work to their standards, as it is their company your software is representing.

**End of assessment**