**TAFE NSI – Hornsby College**

**Information Technology Section**

**ICA50711 – Diploma of IT – Software Development**

**Cloud Stream**

**Integrated Project**

(Individual Project)

**Semester 1, 2019**

**Units covered in this Project:**

|  |  |  |
| --- | --- | --- |
| **No** | **Unit Code** | **Unit Name** |
| 1 | ICTPRG418 | Apply intermediate programming skills in another language |
| 2 | ICTPRG523\* | Apply advanced programming skills in another language |
| 3 | ICTPRG604 | Create cloud computing services |
| 4 | ICTPRG529\* | Apply testing techniques for software development |

\* These are graded units that contribute to the Course Grading.

**Due Dates:**

**TBA**

**Student instructions:**

This is a major project assignment to be completed individually and will assess the students in the 4 units listed above. Using the BIT Services project specification you are to build a small Cloud application using ASP.Net, PHP or Java technology or anything else agreed with your teacher.

The following instructions are given to you in your Project Management class as a client brief for BIT Services system:

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| --- |
| **Addendum | *BIT field support services* business case | Client Brief Background Information** |
| * BIT field support services is a division of Business Information Technology Pty Ltd (BIT) that provides IT support services (hardware and software trouble-shooting, new installations, periodic IT audits, etc.) for approximately 2,500 clients in Australia. * BIT management team would like to enhance operational effectiveness with its current paper, phone and fax-based field support client requests and contractors management via the adoption of a new integrated electronic solution to streamline all its processes. * BIT field support services division is staffed with 5 x Coordinators and has ~100 x Field Contractors. * Client requests are received from a variety of sources; Initial client support needs assessments are generally conducted by coordinators over-the-phone; if a field support activity is required, a coordinator would book the suitable field contractor/s based on the IT skills required, availability (both client and contractor/s) and location/proximity to the site/s where the activity is to be executed. * Daily roster management is currently mostly manual (paper & fax-based), except for field contractors tele-clocking their km’s via an outsourced 1800 phone service after each completed job. * Rosters prioritise clients’ requirements/preferences with time of service. * Most field contractors are working on a part-time basis, have specific availability periods and specific skills; they all are required to have a smartphone (with visual display capabilities), vehicle and suitable insurances (PI, PL, Car, etc.). * Field contractors are paid for their services (hourly basis) as well as for km’s travelled (km basis). * Rosters are managed on a daily basis (for Next Business Day on-site service) by each coordinator with a rotating on-call process for week-ends spanning 5 weeks. |

The BIT Services teach wants a website that allows their clients and contractors to login and look at their jobs and status. The Clients are allowed to put up request for a job which then an admin/coordinator can approve and assign it to a contractor like you would do it on your client server Interface.

BIT Services would like to have the following features from your Clouds application:

1. **Client Login**
2. All the clients can now login to your Website to look at their jobs already assigned to Contractors.
3. All clients will be able to create a new job and send the request to BIT Services staff to assign it to an eligible contractor.
4. **Contractor Login**
5. All Contractors should be able to login to the website and look at the jobs assigned to them along with their Client’s details.
6. All Contractors will be able to change the status of the job completed and send for the payment.
7. **Staff Login**
8. All coordinators/Admin can assign a job to a Contractor based on their skills, availability and one other feature of comparison of your choice.
9. All coordinators/Admin can see all jobs that contractors sent for payment and they can change their status to “Verified” or “Send for payment” so that it could be sent out for payments.

The design of the Homepage for BIT services needs to be finished as assignment#1. Further details will be given in the class.

**Marking Criteria:**

The marking criteria for this project as based on how well the students are able to draw all the elements of the cloud Computing:

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| --- | --- | --- | --- |
| **Criteria** | **Total Marks Range** | **Marks obtained** | **Remarks** |
| 1. Good form designs 2. Javascript and required CSS implemented 3. Database Connectivity present 4. All the logins and other DB operations work as mentioned in the specifications 5. Good Internal Documentation present 6. Enough Test Cases generated and submitted in a Spread Sheet form to see enough testing has been done for the website to check its consistency | 85-100  (Distinction) |  |  |
| 1. Good form designs 2. Javascript and required CSS implemented 3. Database Connectivity present 4. All the logins and other DB operations work as mentioned in the specifications mostly. 5. Good Internal Documentation present 6. Minimum Test cases generated in a spread sheet form. | 75 – 84  (Credit) |  |  |
| 1. Good form designs 2. Javascript and required CSS implemented 3. Database Connectivity present 4. All the logins and other DB operations work as mentioned in the specifications with few mistakes. 5. Shown the testing in some other form. | 65 – 74  (Competent) |  |  |
| 1. form designs missing 2. Javascript and required CSS not or wrongly implemented 3. Database Connectivity may not be present and Even if it is present the code does not work properly. 4. Logins and other DB operations do not fundamentally work. Major drawbacks in the code to show that the student do not have a clear logic for problem solving. | 0-50  (Fail) |  |  |