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ASSIGNMENT
COVER SHEET

Course Code: 1008ICT

Course Name: Business Informatics

Due Date: 27th May 2016

Assessment #: 1

Enrolment:

Campus (Enrolled): Gold Coast

Course Tutor: Reza Ghanbarzadeh

Course Convenor: Dr Amir Hossein Ghapanchi

Please provide your STUDENT DETAILS here:

Student Number: s5055348

Student Name: John Santias

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Approval Date:

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Tick Where Appropriate:

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Examiner's Comments:

Question 1

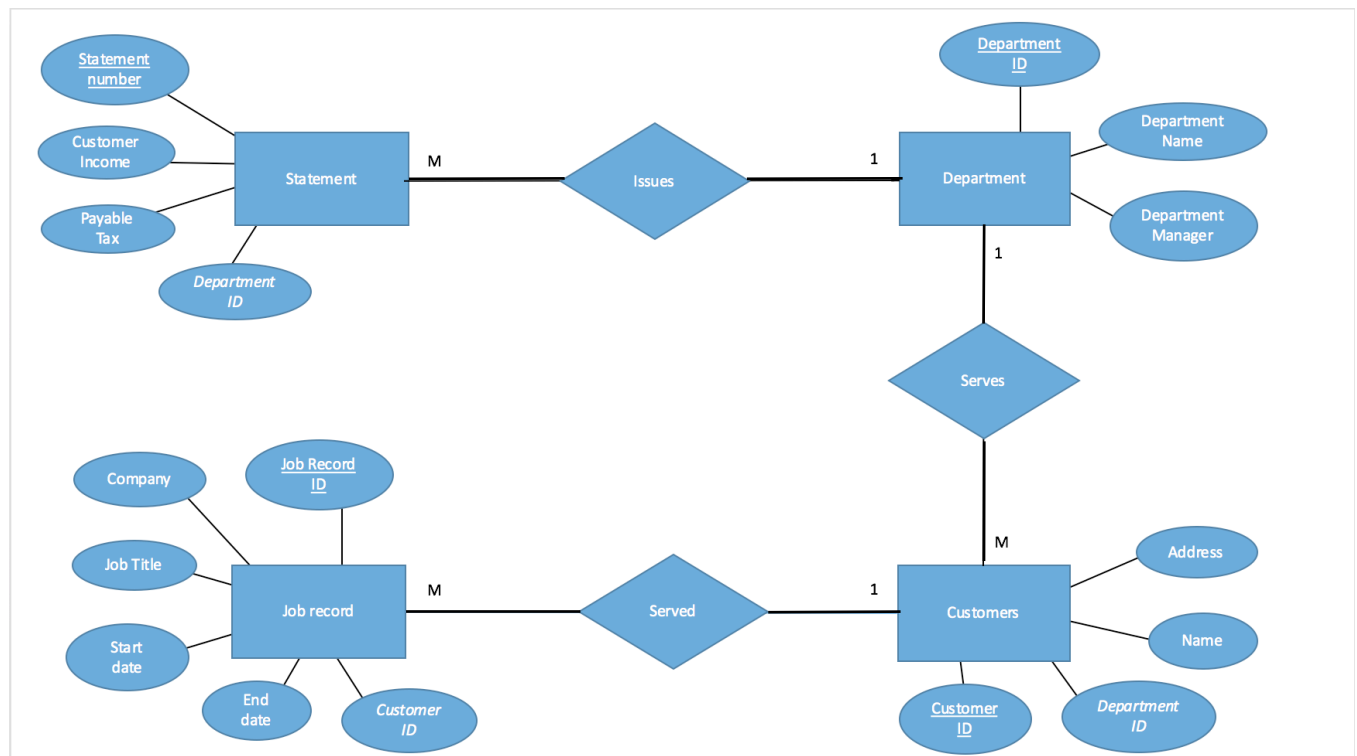
Scenario:

A taxation office which has operated for many has several departments such as ta for individuals, tax for businesses etc. Each department is uniquely identified by a department id. Other attributes of a department are department name and manager. Each department serves a number of customers. Each customer is described by his/her customer id, name, and address. Each customer is served by one (and one one) department. Furthermore, each customer may hold any number of job records. A specific job record, represented by job record id, company at which the person has worked, job title, start date and end date, cannot belong to two persons or more. At the end of each financial year, the taxation office issues a unique statement for each customer that reflects the statement number, his/her income, and payable tax.

Answer:

Entity Relationship Diagram (ERD)

The Entity Relationship diagram below shows relationship between tax office, departments, customers and statement issues.



Question 2

Question:

Write a proposal to your manager as to how your university can achieve a higher student interaction and engagement in its online courses. Remember there are many technologies that can assist this (for example, social media such as Facebook, Google Plus and Twitter, Web II technologies, various features of learning management systems (eg. Various features of Learning at Griffith portal), mobile applications, Wikis, discussion boards, and many more). In your response, (a) suggest one or combination of some technologies as a medium for online interaction in the university courses, and (b) justify this choice. Additionally, (c) include guidelines as to how the proposed technology should be set and used so that it maximizes student interaction and engagement. Feel free to use examples from your own study, or your friends'.

Answer:

As a business analyst, Griffith has one of the most important problems in online learning is the lack of in-person interaction and engagement. Students who do courses online are less engaged with their courses than in-person students. Myself, John Santias, know that there is a better way of engaging students to learn online and make them more engaged in their studies. Students can be easily distracted with social media, unlike having an in-person, students show a bigger engagement and better marks because they're learning face to face and their questions can be answered. Also, students use social media almost everyday. Social media such as Facebook, Twitter, or YouTube can easily distract students and their studies. Facebook, for example, connects people and allow everyone to message each other etc. Facebook is used by many students to contact each other to ask where they are or what class is on and even help each other with problems in their studies. With this as a popular social media site, university can make their own social media page maybe similar to Facebook. The university should offer an online page with a discussion board. This board may display class schedules, University fees, exam timetables, assessment items, referencing rules, events and even class or lecture recordings and information. This kind of page can help students learn and know more about their course. Where most of the information and the work can be placed on the discussion board, so students can do their course online. The teachers can put more information about the assessed work which will give more knowledge to students. Even so, the class or lecture recordings makes students feel like they were in the lecture. Students should also be able to contact their course convener or tutor with direct message link on the discussion board. That way, it solves the students' problems and improve their learning. Online learning or the use of social media is used by almost every student and almost everyday. This is a great way of engaging students to their studies by having their own page with a discussion board where most of the information is and it simulates being in the classroom and lecture. This will improve their results with the available resources online.

Question 3

Scenario:

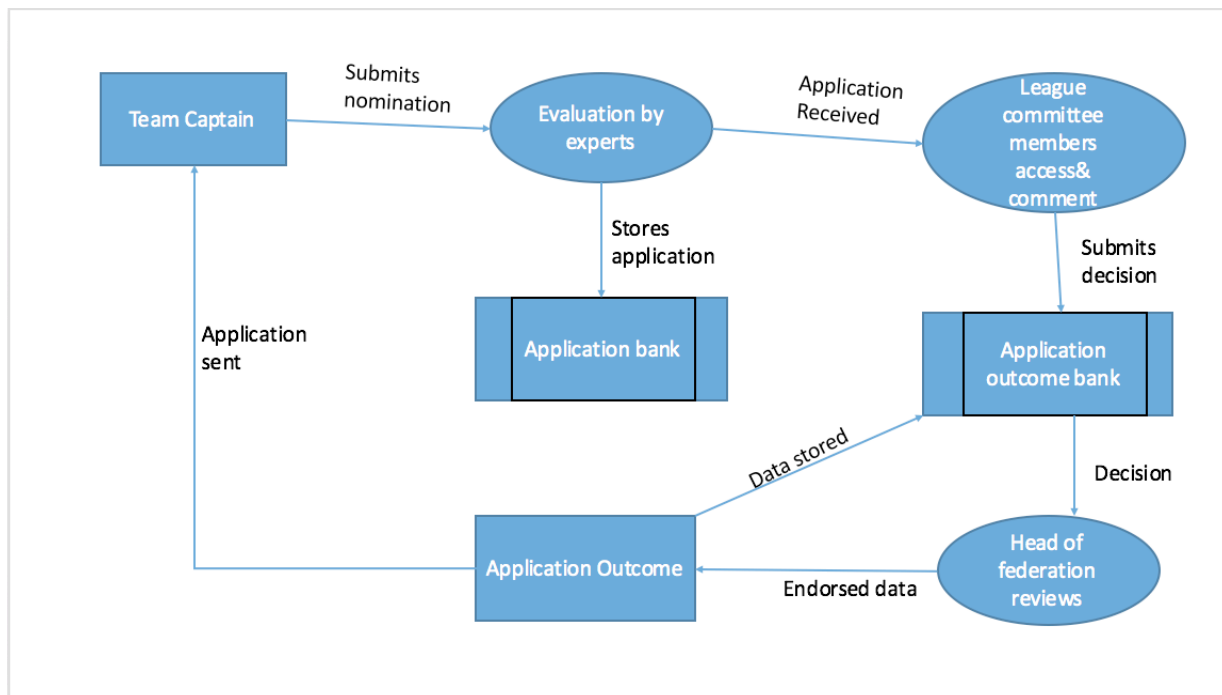
You are responsible for analyzing the process of local football teams' nomination for participation in your state football league. You start your job by modelling the current situation with this process through drawing a DFD.

The process here is that the team captain submits their team's nomination application for participation in the state football league. Upon submission, the application is evaluated by an expert, who then stores the application and his/her comments into a database called application bank. Once a minimum of 5 applications are received, members of the league committee meet to make decisions on the applications. The committee accesses each application and the expert's comments through the application bank. They then decide on the suitability of each application and submit their decision onto a database called application outcome bank. Then, the head of the federation endorses each decided application by reviewing the submitted application, experts' comments and committee's decision, and sends the application outcome to the team captain. The endorsement data is then stored in the application outcome bank.

Answer:

Data flow Diagram (DFD)

The diagram below shows the flow of application data from the team captains, expert panels, league committees and head of federation

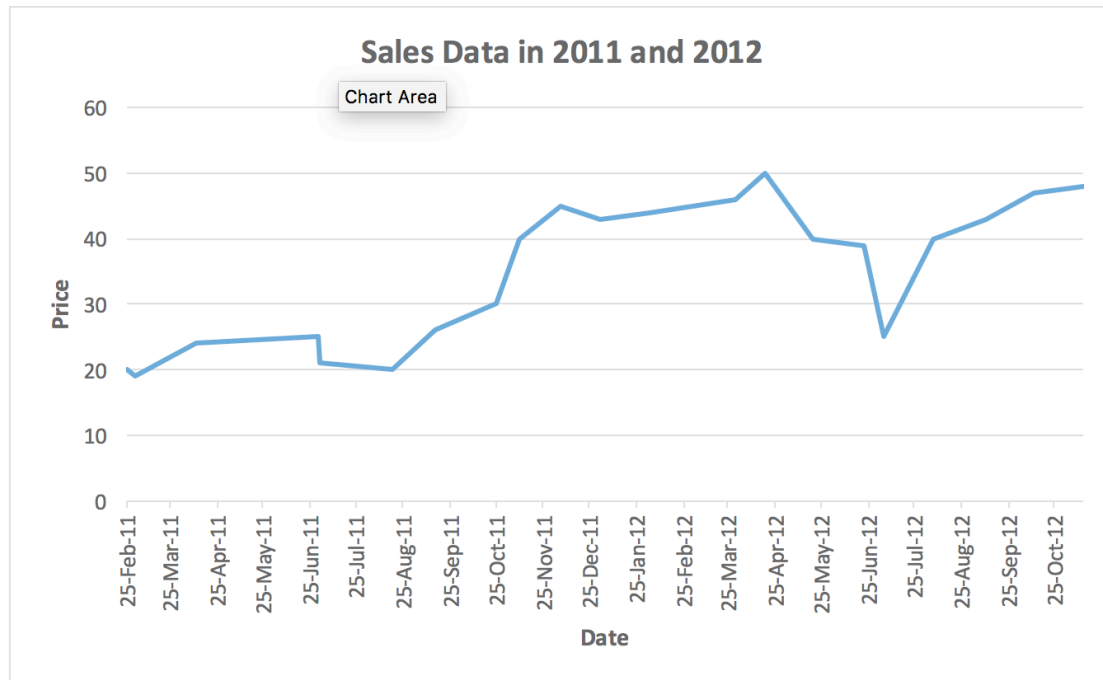


Question 4

Answer to question 4A:

| | A | B | C | D | E | F | G |
|----|--------------|---------------|-------------------|--------------|----------------------------------------------------------|----------------|------------|
| 1 | Meeting Date | Customer Name | Customer Location | Sales Person | Sales Person's Email | Product Name | Unit Price |
| 2 | 25-Feb-11 | Ajax | Sydney | Johnson | Johnson@gmail.com | P1 | 20 |
| 3 | 2-Mar-11 | Baker | Singapore | Jackson | Jackson@gmail.com | P2 | 19 |
| 4 | 11-Apr-11 | Champion | Sydney | Jackson | Jackson@gmail.com | P3 | 24 |
| 5 | 30-Jun-11 | Ajax | Sydney | Johnson | Johnson@gmail.com | P3 | 25 |
| 6 | 1-Jul-11 | Champion | Sydney | Johnson | Johnson@gmail.com | P1 | 21 |
| 7 | 18-Aug-11 | Baker | Singapore | Jackson | Jackson@gmail.com | P2 | 20 |
| 8 | 15-Sep-11 | Baker | Singapore | Johnson | Johnson@gmail.com | P1 | 26 |
| 9 | 25-Oct-11 | Ajax | Sydney | Jackson | Jackson@gmail.com | P2 | 30 |
| 10 | 9-Nov-11 | Champion | Sydney | Jackson | Jackson@gmail.com | P3 | 40 |
| 11 | 6-Dec-11 | Ajax | Sydney | Johnson | Johnson@gmail.com | P2 | 45 |
| 12 | 1-Jan-12 | Champion | Sydney | Jackson | Jackson@gmail.com | P3 | 43 |
| 13 | 2-Feb-12 | Baker | Singapore | Johnson | Johnson@gmail.com | P1 | 44 |
| 14 | 29-Mar-12 | Ajax | Sydney | Jackson | Jackson@gmail.com | P2 | 46 |
| 15 | 18-Apr-12 | Champion | Sydney | Johnson | Johnson@gmail.com | P1 | 50 |
| 16 | 19-May-12 | Baker | Singapore | Jackson | Jackson@gmail.com | P3 | 40 |
| 17 | 22-Jun-12 | Ajax | Sydney | Johnson | Johnson@gmail.com | P1 | 39 |
| 18 | 5-Jul-12 | Champion | Sydney | Jackson | Jackson@gmail.com | P2 | 25 |
| 19 | 6-Aug-12 | Baker | Singapore | Johnson | Johnson@gmail.com | P3 | 40 |
| 20 | 10-Sep-12 | Baker | Singapore | Jackson | Jackson@gmail.com | P2 | 43 |
| 21 | 11-Oct-12 | Ajax | Sydney | Johnson | Johnson@gmail.com | P1 | 47 |
| 22 | 12-Nov-12 | Champion | Sydney | Jackson | Jackson@gmail.com | P2 | 48 |
| 23 | | | | | | Total 2011: | 270 |
| 24 | | | | | | Total 2012: | 465 |
| 25 | | | | | | Overall Total: | 735 |

Answer to question 4B:



Answer to question 4C:

| B | C | Meeting Date | Product Name |
|---------------|-------------------|--------------|----------------|
| Customer Name | Customer Location | | Overall Total: |
| Ajax | Sydney | 25-Feb-11 | P1 |
| Ajax | Sydney | 22-Jun-12 | P1-Turbo |
| Ajax | Sydney | 11-Oct-12 | P1-Turbo |
| Ajax | Sydney | 15-Sep-11 | P1-Turbo |
| Ajax | Sydney | 2-Feb-12 | P1-Turbo |
| Ajax | Sydney | 1-Jul-11 | P1 |
| Ajax | Sydney | 18-Apr-12 | P1-Turbo |
| Baker | Singapore | 25-Oct-11 | P2 |
| Baker | Singapore | 6-Dec-11 | P2 |
| Baker | Singapore | 29-Mar-12 | P2 |
| Baker | Singapore | 2-Mar-11 | P2 |
| Baker | Singapore | 18-Aug-11 | P2 |
| Baker | Singapore | 10-Sep-12 | P2 |
| Baker | Singapore | 5-Jul-12 | P2 |
| Champion | Perth | 12-Nov-12 | P2 |
| Champion | Perth | 30-Jun-11 | P3 |
| Champion | Perth | 19-May-12 | P3 |
| Champion | Perth | 6-Aug-12 | P3 |
| Champion | Perth | 11-Apr-11 | P3 |
| Champion | Perth | 9-Nov-11 | P3 |
| Champion | Perth | 1-Jan-12 | P3 |

The steps taken to change the mistakes are listed below:

Step 1: To change the error of Champions' location from Sydney to Perth. I had to select the whole column, 'Customer Name', by highlighting it and then selecting the 'Sort and filter' Function located on the home taskbar on excel. It rearranged the data in the column in alphabetical, A to Z. This made it easier to locate and highlight Champions' details. The 'sort and filter' function put Champions' details at the bottom of the spreadsheet which enabled me to highlight the customer location and change his location from Sydney to Perth by entering into one cell first and then dragging the tiny green button on the bottom right of the cell and dragged it down the rest of the column to filter it with the same data.

Step 2: In changing 'P1' to 'P1-Turbo' from September 2011 onwards. The procedure was similar to step 1. The whole column was selected and changed to alphabetical order. The other columns were rearranged to match. Reading from the dates, each cell with 'P1' was changed to 'P1-Turbo' from September 2011 onwards. By typing 'P', an automatic suggestion comes up with 'P1-Turbo' which can be selected and saves time from typing more.

Answer to question 4D:

1) For such a spreadsheet, how would you correct the problems associated with question 4-c?

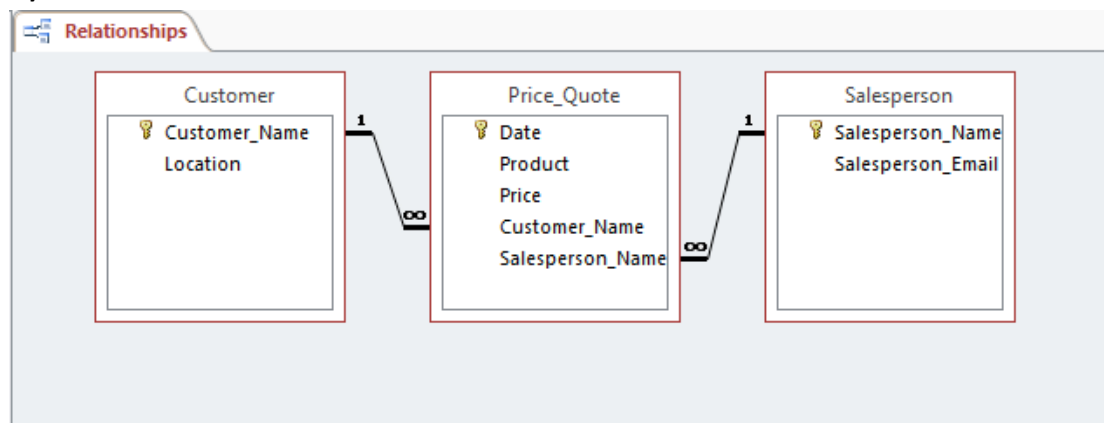
In using Excel, errors can occur especially when adding data. It is possible and quick to fix the mistakes. With the method I used in 4C, it was effective and less time was used to fix the spreadsheet. The method used, which was rearranging the column and then correcting data, is useful and uses less time in larger spreadsheets. If there was an issue with the data, for example names were wrong, the 'sort and filter' tool rearranges the data in alphabetical order helps the user find the names. It enhances the time and the search for a particular name in the search engine in Excel. Excel helps business edit, manage and record data.

2) Comment on the appropriateness of using a spreadsheet for such an application. Excel's spreadsheet is appropriate as many customers use it.

The spreadsheet spreads out the data as shown on 4A which is easy to read, manage and set out. Spreadsheets allow businesses to record and manage any type of data. Excel is very easy to use and easy to navigate and find the tool you need like inserting a table, pictures, text box and even charts. The software helps people manage and see how their business is going through creating yearly graphs, charts and tables. Spreadsheets are appropriate because it creates data in the easiest format.

Question 5:

A)



B)

| Relationships | | Customer | Price_Quote | Salesperson | |
|---------------|---------|----------|---------------|------------------|--------------|
| Date | Product | Price | Customer_Name | Salesperson_Name | Click to Add |
| 25/02/2011 | P1 | \$20.00 | Ajax | Johnson | |
| 2/03/2011 | P2 | \$19.00 | Baker | Jackson | |
| 11/04/2011 | P3 | \$24.00 | Champion | Jackson | |
| 30/06/2011 | P3 | \$25.00 | Ajax | Johnson | |
| 1/07/2011 | P1 | \$21.00 | Champion | Johnson | |
| 18/08/2011 | P2 | \$20.00 | Baker | Jackson | |
| 15/09/2011 | P1 | \$26.00 | Baker | Johnson | |
| 25/10/2011 | P2 | \$30.00 | Ajax | Jackson | |
| 9/11/2011 | P3 | \$40.00 | Champion | Jackson | |
| 6/12/2011 | P2 | \$45.00 | Ajax | Johnson | |
| 1/01/2012 | P3 | \$43.00 | Champion | Jackson | |
| 2/02/2012 | P1 | \$44.00 | Baker | Johnson | |
| 29/03/2012 | P2 | \$46.00 | Ajax | Jackson | |
| 18/04/2012 | P1 | \$50.00 | Champion | Johnson | |
| 19/05/2012 | P3 | \$40.00 | Baker | Jackson | |
| 22/06/2012 | P1 | \$39.00 | Ajax | Johnson | |
| 5/07/2012 | P2 | \$25.00 | Champion | Jackson | |
| 6/08/2012 | P3 | \$40.00 | Baker | Johnson | |
| 10/09/2012 | P2 | \$43.00 | Baker | Jackson | |
| 11/10/2012 | P1 | \$47.00 | Ajax | Johnson | |
| 12/11/2012 | P2 | \$48.00 | Champion | Jackson | |
| * | | \$0.00 | | | |

| Relationships | | Customer | Price_Quote | Salesperson |
|---------------|------------------|-------------------|--------------|-------------|
| | Salesperson_Name | Salesperson_Email | Click to Add | |
| + | Johnson | Johnson@gmail.com | | |
| + | Jackson | Jackson@gmail.com | | |
| * | | | | |

| Relationships | | Customer | Price_Quote | Salesperson |
|---------------|------------|-----------|--------------|-------------|
| | Customer_# | Location | Click to Add | |
| + | Ajax | Sydney | | |
| + | Baker | Singapore | | |
| + | Champion | Sydney | | |
| * | | | | |

C) Make the changes necessary to record the fact that customer Champion is based in Perth rather than in Sydney. How did you do that and how many items did you need to change?

| Relationships | | | |
|---------------|-----------|--------------|--|
| Customer | | | |
| Price_Quote | | | |
| Salesperson | | | |
| Customer_ID | Location | Click to Add | |
| + Ajax | Sydney | | |
| + Baker | Singapore | | |
| + Champion | Perth | | |
| * | | | |

The only item that was changed was one cell which was Champions location. This cell was in the customer table in the 'Location' column and Perth was entered instead of Sydney.

D) Microsoft excel and access both have advantages and disadvantages. Excel is used for data analysis where it's great for numerical data, storage and the arrangement of analysis that user may need to discover patterns or trends in their data. Excel is great for utilizing few spreadsheets, however, when the user starts to begin to scale the size of the database, it becomes very hard to maintain. Having a massive spreadsheet with thousands of entries can become difficult for the user as the data needs to update the formulas, summary ranges which can lead to having mistakes on the data. As for Access, the user's data can be modified at any time. With adding more information, modifying, filtering and removing it, it doesn't affect the existing record, formulas, tables, summary and the reports made. Therefore, using the best application for storing data is using Microsoft Access because when you keep adding data, your tables or statistics etc. does not get affected or give errors. Unlike Excel, having too much information will damage your statistics.

Question 6:

Scenario:

A company is conducting an analysis of industry structure to be able to decide whether to enter into this industry. This company (like several other existing companies) is planning to make suggestions on private health insurance covers. Note that it would be relatively hassle-free for a new company to enter into this industry. Assume that suppliers of this company would be a large number of computing hardware and software providers. This company is targeting Australian customers. As buyers can look into several alternative products, and also switch easily, the company has to give great deals to buyers to make the buyers purchase their insurance through them.

Answer:

Threat of substitution – High

The threat of substitution is high because there are other related companies such as Allianz, Suncorp, AAMI. There's a lot of big insurance companies like the ones mentioned. For the company to compete, the company will have to offer bigger and better deals than the bigger insurance companies.

Bargaining power of customers – High

The bargaining power of customers is high. There are other alternate insurance companies available. Customers can change to a different insurance company because of a better deal.

Bargaining power of suppliers – Low

The bargaining power of suppliers is low because there are a lot of suppliers to get products from. With the amount of supplies it affects suppliers because of a large range of competition in the market. Suppliers will have trouble getting profit. However, businesses can get supplies from more than just one supplier.

Threat of new entrants – High

The threat of new entrants is high because it would be hard for small businesses to enter the competition competing against bigger successful companies. It is hard for small businesses financially.

Rivalry – High

The rivalry is high because there are many other insurance companies competing within the industry. Most of them have been successful and popular. Smaller businesses can't compete with bigger businesses. Getting the small company to be chosen would be hard because of the other competitors who have higher demand and better deals.