

Consider the following business scenario.

A large computer repair company with several branches around Texas, TexTech Inc. (TTi), is looking to expand their business into retail. TTi plans to buy parts, assemble and sell computer equipment that includes desktops, monitors/displays, laptops, mobile phones and tablets. It also plans to sell maintenance plans for the equipment it sells that includes 90-day money back guarantee, 12-month cost-free repairs for any manufacturing defects, and annual subscription for repairs afterwards at \$100 dollars per year.

As part of a sales & marketing campaign to generate interest, TTi is looking to sell equipment in 5 different packages:

1. Desktop computer, monitor and printer
2. Laptop and printer
3. Phone and tablet
4. Laptop and Phone
5. Desktop computer, monitor and tablet

TTi plans to sell these packages to consumers and to small-and-medium businesses (SMB). It also plans to offer 3-year lease terms to SMB customers wherein they can return all equipment to the company at the end of 3 years at no cost as long as they agree to enter into a new 3-year lease agreement.

TTi has rented a warehouse to hold its inventory and entered into contracts with several manufacturers in China and Taiwan to obtain high-quality parts at a reasonable price. It has also hired 5 sales people and doubled its repair workforce to meet the anticipated increase in business.

TTi has realized that it can no longer use Excel spreadsheets to meet their data and information needs. It is looking to use open source and has decided to develop an application using Python and MySQL. Your team has been brought in to design a database that can meet all of its data needs.

Create a report that contains the following:

- 1. Data requirements of TTi: What are the critical data requirements based on your understanding of TTI business scenario described above.**
- 2. Key Entities and their relationships**
- 3. A conceptual data model in MySQL**
- 4. Key Assumptions made while preparing the data model**

Reference material that might be useful:

- Parts of a computer: <https://smallbusiness.chron.com/parts-computer-uses-54052.html>
- Parts of a laptop: <https://www.dell.com/support/article/us/en/04/sln151790/a-basic-guide-to-identifying-the-major-components-of-a-laptop-system?lang=en>
- Parts of a mobile phone: <http://www.mobilecellphonerepairing.com/parts-of-a-mobile-cell-phone-and-their-function-big-parts.html>
- Parts of a tablet: <https://all-spares.com/en/articles-and-video/what-s-inside-a-tablet-pc-and-other-mobile-devices.html>