

Link to hardware prices : -servers , <https://www.dell.com/en-uk/shop/dell-poweredge-servers/sc/servers>

network , <https://www.cisco.com/c/en/us/solutions/small-business/small-business-promotions-and-free-trials/buy-cisco-small-business-products-online.html#~switching>

Business Case Scenario: Small retail shop

As a fast-growing retail shop understanding our customers is a priority and is key to continuing the growth of our shop. A Customer Database would benefit us greatly in this situation as we would then be able to understand our customers to make profitable business decisions and deliver a more personalized experience to them when shopping with us and potentially add a loyalty program to the store. All this will incentivize customers to return to us and continue to grow our business and put us ahead of our competitors.

We would take a **RAD (Rapid application development)** approach to building this system because as a fast-growing business it would be time and resource efficient as we could start to make use of the system through the iterations before it has been completed. This would allow us to use the database data for smart decision furthering our current growth. As we are growing RAD would also be better for us as the iterations would allow us to be flexible and adapt to our business growth if anything changes and make any changes that are needed.

Resources:

Hardware:

The Hardware required for this implementation is a **Server**. This would be an entry level server for setting up the database and would cost around **£1050**. Then would cost **£60.99/per month** in use.

Another hardware component would be the **Storage** which we would use Google clouds cloud SQL which would come to around **£65.83/per month**.

The **Network** would connect these two components together and would include routers, switches and cables. This would come to approximately **£312** total.

Hardware costs total = £2,122.98

Software:

This would include allowing each team member to have access to the system and applications to work on the project and would cost approximately **£335 per person**.

Software Costs Total = £3,685

In Office Costs:

The team working on this project would need **space to work in** and collaborate with each other. This would cost **£270 per person**. As well as an office the employees would be provided with costs for travel if they more than 50miles away. For **food £10 per person** will be given when working in the office space.

Office Costs Total = £3,080

Cost of	Total cost
Hardware	£2,122.98
Software	£3,685
Office	£3,080
Total	<u>£8,887.92</u>

Employment:

The staff required to build, implement and maintain this system are a **Project Manager** who will manage the project and set and ensure deadlines are being met by the team working on them. A **Database Administrator** who will oversee the design and development and Maintenance of the customer database being built. **Software Developers** will be hired to write the code that will make the customer database, and to meet the requirements set by the project manager. A **Data Analyst** will be hired to translate the data gathered from the database into a visual representation for the business managers. The **Training/Documentation staff** would create documentation and give training sessions to employees on how to use the Customer Database effectively. After the Database is deployed, the **IT Support Staff** would handle the maintenance and address any issues/errors with the system to keep it running.

Development Phases:

As mentioned, we will be taking a **RAD** approach this will split the development into 4 phases over 6 months (24 weeks)

Phase 1: Planning (2 week)

-Analyze the shops' requirements for the database and conduct a meeting with the stakeholders to share the requirements and plan integration of the system.

Phase 2: User Design (4 weeks)

-The Shops management will be given access to use the database prototype working closely with us to make changes necessary to it being what they envisioned.

Phase 3: Construction (12 weeks)

-After gathering input from the user design phase, we will be working on developing the finalized version of the customer database with all features added.

Phase 4: Cutover (5 weeks)

-In this phase we would prepare for the finalized system to be launched into a live environment and begin creating the documentation and training guides to ensure the team is able to utilize the system effectively. Finally, before launch of the system we conduct integration testing.

This leaves 1 week room for any unexpected delays when developing.

Job	Yearly Salary	Number of staff	Required Time	Total costs
Project Manager	£51,634	1	24weeks	£23,831
Database Administrator	£55,364	1	24weeks+	£25,552
Data Analyst	£51,925	1	4weeks+	£10,800
Software Developer	£43,101	3	16weeks	£39,785
Training/Documentation Staff	£40,000	2	5weeks	£7,692
IT support staff	£32,000	3	5weeks+	£9,230
Total	£274,024	11	-	<u>£116,890</u>

Costs of running:

After the system has been deployed there would be additional costs included to keep the system running and maintained so it can be used by the retail store.

Required Cost	Cost per month
Storage	£65.83
Server	£60.99
IT Support Staff	£2666 x2 (£5332)
Data analyst	£4327
Database Administrator	£4613
Total	<u>£14,398.82</u>

Summary:

The project is aimed to be completed within a 6-month timeframe. The **Total Costs** for this project to be completed would add up to **£125,411.98**. And after its completion the system would then need to be maintained this would include hardware and staff the **Costs of Running** would add up to **£14,398.82 per month**. Additionally, repairs would want to be considered if any components become faulty and upgrades may want to be considered if the business continues to grow as it its current exponential rate.