**Online Store**

**Group Proposal**

for

**Jazz Clothing Co.**

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**GenTek Co.**

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**1. Executive Summary**

Jazz Clothing Co. is a newly established clothing retail store in Canada that wants to become the leading store selling clothes in Canada and US. This includes clothing for any age, from 5 to 70, as well as fashion clothing. In order to achieve this, it must expand globally within and across Canada. The only way to achieve this goal is to build up an online shopping cart.  
Our company, GenTek, is proposing to construct an online shopping cart for them. This includes development, installation, and configuration of required hardware and software. Once the online shopping is done developing, we will offer them continuous management and maintenance to Jazz Clothing IT department.  
           The online shopping cart will consist of many features. One of the features is to provide customer ability to search through the products as well as to browse specific types of clothing. Another feature is to allow them the ability to purchase clothing online using variety of payment methods like PayPal, Visa, MasterCard and debit. Finally, the online shopping will also allow detecting the shipping fee which allows them to choose either standard or express shipping to ship the product to the buyer.  
           The online store will also have the account management features, which allows users to manage their personal information. Information such as their address, payment information will allow users to change or update them. Customers who choose to create an account can conveniently track their shipments bought online versus customers who does not have an account. So it is recommended to create an account.  
           Our online store will be very robust as it will automatically recognize administrator credentials; therefore administrators can make important changes while on the go. These changes include adding, updating, or deleting items in a very easy way.  
           GenTek is a well-established IT web development company, since 2000 we have been developing professional websites for retailers and companies. This Experience will provide Jazz Clothing Co with a secure and user-friendly online shopping cart. We plan to complete this project within four weeks for a very reasonable cost. With the help of our experienced IT web development professionals, Jazz Clothing will be able to deliver online buyers with a very easy and user-friendly online shopping experience, and website administrators with a convenient way to manage the site.

**2. Introduction**

Jazz Clothing is a newly established, fast growing fashion retailer with over 400 items across 9 product lines. Jazz clothing currently operates 10 locations across Ontario and it’s main customer base is both male and female between the ages of 16 and 42 who typically make 5 or more purchases a year each one is approximately $250 in value.

         We at GenTek feel that in order to provide international customers access to Jazz Clothing’s products, an online store with a searchable catalog, along with a shopping cart needs to be implemented.  An online catalog will allow Jazz Clothing to display their products online to customers all over the world. Also, with having customizable search functions linked to Jazz Clothing online catalogue, customers will be able to locate exactly what they are trying to purchase more efficiently. Jazz Clothing’s online shopping cart will allow Jazz Clothing to extend their current customer base and give everyone all around the world the ability to purchase the products they need from Jazz Clothing Co. An online store eliminates the geographical boundaries that are tied to physical stores since anyone that is connected to the internet has access to the store. Also, creating an online store requires much less overhead costs while keeping any financial risk low compared to opening an actual retail store.

The new online catalog and shopping cart would be implemented into Jazz Clothing’s current website. Jazz Clothing’s new online store will enable customers to search their online catalogue using many different combinations of filters like by price, by gender, by size, and by the type of clothing. The shopping cart feature will accept standard payment methods like debit and credit, and also online exclusive methods like PayPal and Google Checkout. Shipping methods will accommodate Canadian and American shoppers by providing options such as Can-Par, Canada Post, FedEx, and UPS along with estimates for the total costs to ship.

Customers will have convenient and safe access to a speedy checkout. It will not be mandatory to create an account for checkout, but doing so will make the shipment tracking process and customer correspondence much easier for both parties. The whole checkout process will run on secure and encrypted web protocols to prevent identity theft and provide a safe shopping experience.

After development, the testing stage will consist of adding actual for-sale items to the online catalog. Each category will be added with 2 associated items. That way, the final catalog is already being built during testing process and moving the site to production will be a smooth and swift process.

**3. Implementation Plan**

Reliable software and hardware solutions will be used to power the online store system. We plan to have our online store experience mirror the already great shopping experience provided by the retail stores.

These solutions will include high end Linux servers for customer accounts and purchases, MySQL for the database system, Cisco networking equipment for firewall security and handling all the traffic, and our own custom in house applications to add and manage features of the store.

These computer systems will be managed by Jazz Clothing’s internal IT department employees.

**3.1. Hardware**

For servers we are going to use HP ProLiant series of servers with Xeon quad-core processing with RAID-1 technology. These will be the servers hosting the sites and the user accounts. These servers will also host the MySQL databases, both the client accounts and the inventory management.

We plan to make our design easily expandable and modular with good fault tolerance because that will ensure the most uptime since the redundancy eliminates single points of failure. The hard drives in the servers are mirrored in case of failure and it has a redundant power supply in case of power failure. All the hardware is hot swappable so there is no downtime.

For web-traffic management and security, we will use Cisco PIX firewall to distribute the load and route traffic effectively and setup an effective firewall.

**3.2 Software**

The software will be implemented with a focus for system reliability and performance.  
Working along with the new hardware, software solutions must be implemented to provide additional functionality. These software solutions will include a variety of applications like scripts and server-side tools developed by our team of programmers.

A new database will also be created following the structure of the current one. Data from the current database will be replicated onto the existing and synchronization applications will be utilized to transfer data between them.

Additionally, the new database will provide faster response times for catalog searches because they will be hosted on the new server machines preventing customers from querying the main one.

The most appropriate operating system to install on the server machines will be CentOS enterprise-grade. CentOS is an open source operating system that feature high levels of security. Being open source, it will be a more cost efficient solution than using Windows Server Operating Systems.

Apache V2.4 will be utilized to fetch web pages, and databases will be maintained and generated by MYSQL Server 5.6.x. The language used to generate web features like search and will be account management will be PHP.

The Combination of Linux, Apache, MySQL and PHP is known as LAMP and is used by the IT world as a flexible and stable platform for web development.

**3.3 Summary of Components**

The following table lists the hardware and software components required to begin the test phase:

|  |  |  |
| --- | --- | --- |
| **Purpose** | **Model** | **Quantity** |
| Server | HP ProLiant | 3 |
| Network Mgmt and Security | Cisco PIX | 1 |
| Operating System | CentOS | 4 |
| Web Server Application | Apache V2.4 | 2 |
| Database | MySQL Server 5.6 | 2 |
| Web Scripting | PHP, Perl | N/A |

Upon completion of the test phase, one more servers will be added, along with the necessary software on each machine.

**3.4. Handoff**

Before entering production, the systems will be handed over to Jazz Clothing’s IT departments. Two weeks of training will be provided to teach the IT department’s staff about maintaining and troubleshooting their respective technologies. In the first week the training will consist of teaching how to maintain the infrastructure required to support the web store. The second week will consist of some cross training so that each IT department has an overall idea of what the other departments are doing. After the two weeks, the IT departments have sufficient knowledge for dealing with the daily operations.

We also offer consulting for the systems that we implement so Jazz may subscribe to our services and receive comprehensive support for the more involved issues that may arise.

**4. Personnel**

Our company, GenTek Co., is a growing IT company located in Toronto. Founded in 2000, we have quickly become one of the most well-known IT consulting company here in Toronto, Ontario. Our specialization in web development and networking makes our company one of the famous IT consulting company in Canada. We also provide services such as troubleshooting networking issues such as network, security. Past projects we have completed include upgrading security network for DeeJay Music Co. and developing a website for GameShop Company.

**4.1 Project Team**

For this contract the team required to develop the web store will be comprised of:  
  
    1 Project Manager  
    2 Web Developers (One Senior and one Junior)  
    1 Database Administrator  
    1 Network Administrator  
    1 Graphic Designer

The Network Administrator will be tasked of inspecting Network security to ensure security is implemented on the router of the company. Also the network administrator need to ensure the every one of the company has the ability to access the online shopping website. The Database administrator will setup the database as well as there is ensure that there is reliability on the data, meaning that there is no duplicate records in the unique. He is also administering and creating required database used for online shopping cart. The web developers are responsible for creating the whole shopping cart. The Graphic Designer will be a third-party contractor from DesignStudios Inc. He will be helping the project by designing the interface of the shopping cart. He has collaborated with our company on several projects in the past, and his quality of his work is very professional.

**5. Timeline**

Our project will need time to acquire and configure the hardware, set-up the software, and develop the online cart for Jazz Clothing Co. We will also need to work with the Jazz Clothing Co. to decide the design of the web page, as well as information to display on the shopping cart. The following table shows the required time before delivering the shopping cart to the Jazz Clothing Co.

|  |  |
| --- | --- |
| **Task** | **Time Required** |
| Purchase hardware | 7 days |
| Install hardware and software | 3 days |
| Decisions for design and implementation | 4 days |
| Database creation for online catalog | 2 days |
| Programming | 7 days |
| Testing | 4 days |
|  |  |
| **Estimated Total Time** | **27 days** |

**6. Budget**

The following table is an accounting of the total cost to begin the test phase:

|  |  |
| --- | --- |
| **Item** | **Price** |
| *2x*  [HP ProLiant DL500 Servers](http://h10010.www1.hp.com/wwpc/us/en/sm/WF04a/15351-15351-3328412-241644-3328422.html) | $12,024.00 |
| Cisco 1945 Router + Add on Modules | $1245.85 |
| Hardware Installation | $1600.00 |
| Software and Database Installation | $1500.00 |
| Programming | $8000.00 |
| Testing | $1300.00 |
| Training | $6000.00 |
| **Total** | **$31669.85** |

At the end of the test phase, one additional [HP ProLiant DL500 Servers](http://h10010.www1.hp.com/wwpc/us/en/sm/WF04a/15351-15351-3328412-241644-3328422.html) will need to be purchased to ensure redundancy in the event of one of the servers going offline, bringing total cost to $37681.85 plus applicable taxes.

           We also offer an ongoing consulting service to maintain the systems and networks we set up, at a subscription cost of $8000.00/year. The subscription includes 24/7 access to our help center at no additional charge.

7. **Conclusion**

Developing an online shopping cart for Jazz Clothing Co will allow the company to expand the market across US and Canada, helping customers to buy clothes easily as well as provide a lot of features such as security that make the website very user-friendly as well as give customers an ease of mind of their confidential information. With our talented team of network administrator and developers, we will provide Jazz Company Co, a fast and efficient website suitable to your customers’ needs. The online catalog will help customers to find easily what they are looking for, and the shopping cart will make purchasing items easy over the internet.

We are excited and can’t wait for chance to work with any fast-growing companies like Jazz Clothing Co. that is looking for a shopping cart. We will make sure to deliver satisfaction to our clients working with us.

We anticipate commencing this project immediately!

**8. Appendix A**

A selection of companies GenTek provides services for:

|  |  |  |
| --- | --- | --- |
| **Company** | **Type of Service** | **Ongoing Consulting** |
| Tone Tai Supermarket | Rebuild of WAN Network | 4 years |
| Garman  Inc. | Upgraded of WAN Network | 3 years |
| Toronto District School Board | Website Development | 3 years |