**Identification of Non-Functional Requirements**

**2-A) ONLINE VOTING SYSTEM:**

Electronic voting has been attracting the attention of governments and research groups with most work on the subject referring to the user requirements such a system should satisfy. For several cases, though, requirement identification seldom goes further than a simple narrative description of a basic set of non-functional characteristics related to security. On the other hand, governmental reports usually refer to requirements as the set of applicable laws pertaining a certain voting procedure. Both sides seem to underestimate the fact that an electronic voting system is an information system with functional, as well as nonfunctional, requirements. In this paper we apply the Rational Software Development Process for identifying and presenting the requirements an electronic voting system should meet. The requirements are based on a generic voting model that has been developed having in mind the European Union member states legislation, the organisational details of currently applicable voting procedures and the opportunities offered and the constraints imposed by the state-of-the-art technology.

**2-B) LIBRARY MANAGEMENT SYSTEM:**

A Library Management System is software that provides the ability to find books, manage books, track borrowed books, managing fines and bills all in one place. It helps the librarian manage the books and books borrowed by members and automates most of the library activities. It increases efficiency and reduces the cost needed for maintaining a library and saves time and effort for both the user and the librarian.

### Non - Functional Requirements :

**Usability**  
Usability is the main non-functional requirement for a library management system. The UI should be simple enough for everyone to understand and get the relevant information without any special training. Different languages can be provided based on the requirements.

**Accuracy**  
Accuracy is another important non-functional requirement for the library management system. The data stored about the books and the fines calculated should be correct, consistent, and reliable.

**Availability:**  
The System should be available for the duration when the library operates and must be recovered within an hour or less if it fails. The system should respond to the requests within two seconds or less.

**Maintainability**  
The software should be easily maintainable and adding new features and making changes to the software must be as simple as possible. In addition to this, the software must also be portable.

**3-C) ONLINE SHOPPING SYSTEM**

Designing interactive systems with graphic user interfaces is an important step in the development of online devices and websites. Online shopping systems and recommender applications have improved in the last decade and they are now widely used all over the world. However, it is important to understand online shoppers needs and preferences and to take them into account. In this regard, several online shopping systems rely on customer preference elicitation while others suggest products based on other customers recommendations. The focus of this paper is the interaction design of a system for Managing Preferences and Constraints (MPC) and Preferences Learning (PL). An evaluation method is utilized to obtain user feedback on how effective the system is and how easy it is to use, compared to other systems. The Volere requirements specification template was used with the six step framework to guide the evaluation.

non-functional requirements articulate the quality attributes of the website that buildpositive user experience and optimal website performance. The Bible of business analysts — BABOK — distinguishes between NFRs for merchants (e.g. maintainability, scalability, reusability) and for users (e.g. usability, security, accessibility). In our opinion, they are all equally important at different stages of your business journey: as your store scales, your non-functional requirements may add up.

Here are some basic types of non-functional requirements that should make it to the website specification document of all ecommerce businesses.

**1: Usability**

No matter the size of your business, you want your website to be intuitive and easy-to-use. It takes about 0.05 seconds for users to figure out if your website is worth their time and attention. So you’ll definitely want to work on your homepage design, calls-to-action, and easy checkout to get past those milliseconds of doom. Website usability is also defined by

**2: Security**

Security is paramount while dealing with monetary transactions and sensitive data. A simple SSL certification and data privacy policy will instill trust into your website and convert the customers into your brand advocates. It is also about different admin roles allowing you to control who can create, see, copy, change, or delete information. Depending on your business location, security also means complying with the customer data protection rules (case in point: GDPR in Europe).

There are many factors at play when it comes to security; specifying this non-functional requirement means taking the first step to ecommerce fraud prevention.

**3: Performance**

If your goal is increasing your website traffic, performance should be the priority NFR in your specification document. This NFR is often found in briefs from large enterprises or websites with legacy architecture: they want their e-stores to load fast no matter the number of integrations and sales seasons. Set up the speed benchmark, a maximum number of SKUs to be added, or any other performance indicator suitable to your business. Don’t include third-party system delivery time, though; your developers can’t do much if a certain business operation depends on an API call to another database.Testing website performance will help you understand whether you’ve achieved your KPIs set out in non-functional requirements. Prepare for Magento performance testing following our in-depth guide on the matter!

**4: Maintainability**

It’s widely known that the tricky part of planning a business budget is accounting for the operational costs of business maintenance. Striving to make the website maintainable from the initial development phase means cutting the time and cost to identify and resolve the system faults in the future. As saddening as it may seem, there’s no escape from the future issues and you can see many cues on how to maintain an ecommerce website. But your task is to make the system easy-to-maintain right from its launch.

**5: Scalability**

If you’re looking into a future-proof solution, scalability should be your take. This requirement defines how the website can grow and expand its functionality without affecting its performance. You should be able to add more memory, servers, or disc space to complete more transactions on your website.

On the server-side, you might want to add localization features in case you plan to enter new markets and sell products internationally. Overall, this NFR accounts for painless business expansion and has both hardware and software implications