

**School of Computing**

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

| **Experiment No** | 3 |
| --- | --- |
| **Title of Experiment** | System, Functional and Non-Functional Requirements of the Project |
| **Name of the candidate** | V. VENKAT ADITYA |
| **Team Members** | PARAS PAL, M.V. MANISH |
| **Register Number** | RA2111003011799, RA2111003011818, RA2111003011819 |
| **Date of Experiment** | 10-02-2023 |

**Mark Split Up**

| **S.No** | **Description** | **Maximum Mark** | **Mark Obtained** |
| --- | --- | --- | --- |
| 1 | Exercise | 5 |  |
| 2 | Viva | 5 |  |
| **Total** | | **10** |  |

**Staff Signature with date**

**Aim**

To identify the system, functional and non-functional requirements for the project.

**Team Members:**

| **S No** | **Register No** | **Name** | **Role** |
| --- | --- | --- | --- |
| **1** | **RA2111003011818** | **PARAS PAL** | **Rep/Member** |
| **2** | **RA211103011799** | **V. VENKAT ADITYA** | **Member** |
| **3** | **RA2111003011819** | **M.V. MANISH** | **Member** |

**Project Title: ONLINE MOVIE TICKET BOOKING APPLICATION**

**System Requirements**

| **Hardware** | A computer or device with a stable internet connection  A printer (optional, for printing tickets) |
| --- | --- |
| **Software** | A web browser (Google Chrome, Mozilla, Firefox, etc.)  Adobe Acrobat Reader (for viewing and printing PDF tickets) |
| **Internet** | High-speed internet connection to ensure smooth and fast transaction process  Payment gateway:  Integration with a secure payment gateway to process online transactions |
| **Database** | A database to store customer information, ticket details, and transaction history |
| **User account** | A user-friendly interface for customers to create an account and manage their bookings  Mobile compatibility:  Responsive design to ensure compatibility with mobile devices and ease of use on smaller screens |
| **Security** | A secure socket layer (SSL) certificate to ensure the protection of sensitive customer information. These are some of the basic requirements for an online movie ticket booking system. The specific requirements may vary based on the complexity of the system and the requirements of the movie theater. |

**Functional Requirements**

| 1. **Registration** | If a customer wants to book the ticket. Then, he/she must be registered, an unregistered user cannot book the ticket. |
| --- | --- |
| 1. **Login** | Customer logins to the system by entering valid user ID and password for booking the ticket. |
| 1. **Search Movie** | The system shall have a search function. Customer or visitor can search movies based on movie name, date, time and venue |
| 1. **Seat Viewing** | The customer shall be shown a 2D image of the seats from which the desired seats are selected. |
| 1. **Ticket cancellation** | The customer shall be given an option to cancel the ticket one hour before the movie with some amount of fine. |
| 1. **Payment** | For the customer, there are many types of secure billing that will be prepaid by debit or credit card. The security will be provided by the third party like PayPal etc. |
| 1. **Logout** | After the payment or browsing the movie, the customer will log out. |
| 1. **Generate ticket** | After booking, the system can generate the portable document file (.pdf) and then send one copy to the customer’s email address and another one as an SMS to the customer's phone. |
| 1. **Add movies** | The system shall have a feature for admin to add movies and their details. |
| 1. **Remove movies** | The system shall have a feature for admin to remove movies. |

**Non-Functional Requirements**

| 1. **Security** | The system uses SSL (secured socket layer) in all transactions that include any confidential customer information.  The system must automatically log out all customers after a period of inactivity.  The system should not leave any cookies on the customer’s computer containing the user’s password.  The system’s back-end servers shall only be accessible to authenticated adminstrators.  Sensitive data will be encrypted before being sent over insecure connections like the Internet. |
| --- | --- |
| 1. **Reliability** | The system provides storage of all databases on redundant computers with automatic switchover.  The reliability of the overall program depends on the reliability of the separate components. The main pillar of the reliability of the system is the backup of the database which is continuously maintained and updated to reflect the most recent changes.  Thus, the overall stability of the system depends on the stability of the container and its underlying operating system. |
| 1. **Availability** | The system should be available at all times, meaning the user can access it using a web browser, only restricted by the downtime of the server on which the system runs. In case of a hardware failure or database corruption, a replacement page will be shown. Backups of the database should be retrieved from the server and saved by the administrator. Then, their service will be restarted. It means 24 x 7 availability. |
| 1. **Maintainability** | A commercial database is used for maintaining the database and the application server takes care of the site. In case of a failure, a re-initialization of the program will be done. Also, the software design is being done with modularity in mind so that the maintainability can be done efficiently. |
| 1. **Portability** | The application is HTML and scripting language based. So, the end-user part is fully portable and any system using any web browser should be able to use the features of the system, including any hardware platform that is available or will be available in the future.  An end-user is using this system on any OS; either it is Windows or Linux.  The system shall run on PC, Laptops, and PDA etc. |
| 1. **Accessibility** | The system will be a web-based application. It is going to be accessible on the web browser. |
| 1. **Back up** | We will take a backup in our system database. In order to enable the administrator and the user to access the data from our system! |
| 1. **Performance** | The product shall be based on the web and has to be run from a web server.  The product shall take initial load time depending on internet connection strength which also depends on the media from which the product is run.  The performance shall depend upon hardware components of the client/customer. |
| 1. **Accessibility** | The system shall provide handicap access.  The system shall provide multi-language support. |
| 1. **Supportability** | The source code developed for this system shall be maintained in configuration management tools. |

Result

Thus the requirements were identified and accordingly described.