

Alpha Net Technologies Pvt. Ltd.



Document Name	Software Requirement Specification Of CyberSecurity
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Table of Contents

Overview of the Project.....	3
Objective.....	4
Business Functions Provided in Proposed System.....	5
Input Requirements of the System.....	6
Output Requirements of the System.....	6
Users of the System.....	7
Technologies to be used.....	8
Software Requirements.....	9
Hardware Requirements.....	10

Overview of the Project

Monitoring is to some extent a routine part of the employer/employee relationship. Most employers make some checks on the quantity and quality of work produced by their staff, and employees will generally expect this. Various techniques are being carried out by employers to monitor the work, one of the common way is CCTV cameras. But when employees are not on the same location then CCTV cameras installation is costly enough. To take this point in mind CyberSecurity is being designed.

In this application, application can take screen shots of the work which is being processed by various employees from the various locations. In this system, administrator has all the rights to manage various employee's information, he has also rights to start the server or monitor the work by various employees. Whereas, employee has the rights to manage their own profile. The screen shots process will automatically start after the login by the employee and they will be saved on the client machine. When employee want to sign out from the grabbing application then all the work will be uploaded to the server machine for monitoring.

It is developed using Java technologies.

Objective

The objective of the system would be to:

1. Keep the information of all employees.
2. Get the employee activity information.
3. Generate various reports like user activity etc.

Business Functions Provided in Proposed System

1. **Login:** To access this application, users would be required to login through a login screen. After authentication would be able to access only those areas for which permissions are given.
2. **User Maintenance:** That allows adding or updating the details of all users who are using this to their allocated rights.
3. **Manage Profile:** That allows users to manage their own detail.
4. **Activity Grabber :** That allows to capture the activities (being performed by user) in the form of images.
5. **Zip/UnZipFolder :** That allows to compress the captured images into a single zip file. Also allows to decompress a zipped file.
6. **File Uploader :** That allows to upload captured activity files to the central server.
7. **FTPServer :** To accept the captured activity files sent for client machines.
8. **Reports:** That allows users to generate various reports like user account report or user activity report etc.

Input Requirements of the System

1. Login.
2. User Details
3. Manage profile information
4. Start the Server

Output Requirements of the System

1. Listing of all Users.
2. Listing of all User Activity.

Users of the System

The users of this system will be the users of the organization. The systems are menu driven to facilitate the users. The system is developed with the participation of users, which will help them to understand the system easily.

Following are the users:

1. **Administrator:**
User of type administrator will manage the administration part of the application. Also, he is allowed to manage all the users exists in the system.
2. **Employee:**
User of type employee is the user who will be under Surveillance of Administrator.

Technologies to be used

1. **Java** :Java is Platform Independent, Secure, Object Oriented, Scalable, and Robust Programming Language
It consists of two parts
 - JVM stands for Java Virtual Machine, which is run time environment to execute the java programs.
 - Java API (Application Programming Interface) that consists of inbuilt classes used in java programs.
2. **JDBC** (Java Database Connectivity) is an API, which is used for the communication of java programs with different databases.
3. **Windows Programming**
 - **Swings**: Swings in java is a rich set of components for building GUIs and adding interactivity to java applications. Swing includes all the components that you would expect from a modern GUI toolkit that is table controls, list controls, tree controls, buttons and labels. The basic architecture of swing is MVC. And are entirely made in java.
4. **JasperReports**
 - JasperReports is an open source reporting engine. Using JasperReports reports can generated in any type of application i.e. console application, desktop application, web application, enterprise application.
5. **MySQL**
 - MySQL is used as database, used to store data. It is RDBMS.

Software Requirements

1. **JDK 1.7**
 - NetBeans 7.2.1
2. **Database**
 - MySQL Database Server 5.5
3. **Reports**
 - JasperReports 4.7
4. **Jdbc Driver for MySQL Database Server**
 - mysql-connector-java-5.1.22-bin.jar
5. **Operating System**
 - Windows Vista / XP sp3 / Linux Fedora

Hardware Requirements

1. Intel P4 processor with minimum 2.0Ghz Speed
2. RAM: Minimum 512MB
3. Hard Disk: Minimum 20GB