

ITELAA

Software Requirements Specification

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Dated 03-01-2018

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1. Introduction

1.1 Purpose

The purpose of this document is to build an online system to digitize and centralize the traditional filing system of Police/Levies Stations in District Malankandh to ease the reporting management system. It will illustrate the purpose and complete declaration for the development of the system. It will also explain system constraints, interface and user’s interactions. This document is primarily intended to be proposed to a user for its approval and a reference for developing the first version of the system for the development team.

1.2 Document Conventions

The format of this SRS is simple. Bold face and indentation is used on general topics and or specific points of interest. The remainder of the document will be written using the standard font, Times New Roman.

1.3 Definitions, Acronyms & Abbreviations

Table 1 - Definitions

Terms	Definitions
Web Portal	A web application which present special facilities for users and admins
Administrator	System administrator who is given specific permission for managing and controlling the Online Reporting system
Police	Protection of Life in Civil Establishment
KPITB	Khyber Pakhtunkhwa Information Technology Board
Data Entry Operator	Person responsible for managing all the data entries registers in the web portal portal
FIR	First Investigation Report
Memorandum	Informal memo/note/letter
PO	Proclaimed Offenders
ID	Identification
DESC	Description

<i>FR</i>	Functional requirement
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1.4 Intended Audience & Reading Suggestions

This project is a prototype for the online reporting system and it is restricted within the premises of Police/Levies Administration. This has been implemented under the guidance of Khyber Pakhtunkhwa Information Technology Board Peshawar. This system will be used by District Malakandh Police/Levies. This project is useful for the Police/Levies as well as to the People.

1.5 Product Scope

The “ITELAA” is a web based system which helps Police/Levies administration to do data entry in any of the register in the centralized database which will be accessible to the high authorities of Police/Levies and the entries in any of the register can be retrieved easily on the basis of different filters. Each register have different attributes for each entry using which the search can be done. The web portal will be provided to Malakand Police/Levies authorities which they will use using internet.

Data Entry Operator at every Police/Levies station can provide their entries in the register using the web-portal. An administrator also uses the web-portal in order to administer the system and check the information. The administrator can, for instance, check registers of different Police/Levies stations and manage these information.

Furthermore, the software needs Internet to add or fetch and display results. All system information is maintained in a database, which is located on a web-server. The application also has the capability of representing both summary and detailed information about the entries in different registers.

1.6 References

- <https://krazytech.com/projects>
- www.processimpact.com/elearning.shtml
- IEEE Software Engineering Standards Committee, “IEEE Std 830-1998, IEEE Recommended Practice for Software Requirements Specifications”, October 20, 1998.

2. Overall Description

This section will give an overview of the whole system. The system will be explained in its context to show how the system is related to previous filing system and to introduce the basic functionality of new system. It will also describe what type of users that will use the system and what functionality is available for each user. At last, the constraints and assumptions for the system will be presented.

2.1 Product Perspective

ITELAA is the online web portal which is addition to the traditional filling system that was used to handle information using different registers in the Police/Levies Stations. The main objective of this system is to develop and design a software system which will offer to digitize different registers used in Police/Levies stations for keeping the record and to make them available to authorized persons for accessing from anywhere.

In traditional system there are different registers used to keep the records. A data entry operator used to handle these files. The data entry operator is responsible for correct data entry in to these registers. All these registers have specified formats and numbers. Different registers are used to keep the records of different information. Each register is for some specific information with specific format. For example FIR register is used to keep the record of first investigation report of different complaints. In the traditional system these are handled manually. Now The entry is done handwritten.

Since this is a data-centric portal it will need somewhere to store the data. For that, a database "KP Data Center" will be used. Both the online application and web portal will communicate with the database, however in slightly different ways. The digital online reporting application will only use to get data from user about their complaints/requests while the web portal will add and retrieve data. Admin has only the authority to retrieve data. All of the database communication will go over the Internet.

2.2 Product Functions

With the digital online reporting application, the users will be able to report online in the district Malakandh. The result will be based on the user inputs whether the user wants to report an FIR or the Police/Levies officer wants to check reports with the help of Data entry operator. There are several other registers to enter data in them and it will be possible for the administrator of the system to manage the options for those registers (e.g a user reporting an FIR should not have access to other register's data (Admin access)including information about the POLICE Station).

This web portal of ITELLA application will provide functionality to manage the system and the users information. It will also provide information about the system, for example show when there is a new entry. This will be the admin's responsibility to check entries. Statistics will be easily available at district level.

2.3 User Classes & Characteristics

There are three types of users that interact with the system. Each of these three types of users has different use of the system so each of them has their own requirements.

- Data Entry Operator
- Administrators at district level
- Administrators at Provincial level

2.3.1 Data Entry Operator

Data entry operator can use the portal to enter data/reports about the incidents. This means that the data entry operator has to be able to log in through an account to add data entry in desired register and search for previous entries as well as add data into the desired report Register. Data entry operator has the authority to access and manage all the registers in this portal to add data in them.

2.3.2 District level Administrator

These administrators can also only interact with the web portal. They are able to manage the overall system so there is no incorrect information within it or entries exceeding the limit. The administrator can check the information for each entry having records of each and every report.

2.3.3 Provincial Level Administrator

These type of administrators can only have access to see all the data entries at provincial level but do not have the authority to change or add any thing.

2.4 Operating Environment

The operating environment in which the software will operate, including the hardware platform, operating system and versions etc.

Web portal

Hardware for Web Portal

Hardware platform requirements for web portal are Desktop computer, laptop, tablet or mobile phone with browser and Internet Connectivity. As this is a web application so it is not operating system dependent.

Software for Web Portal

It requires latest version of browser such as Chrome, Firefox, Internet Explorer and Opera etc.

Biometric Device

For authentication purposes, biometric device is required to be connected with machine.

2.5 Design & Implementation Constraints

The Internet connection is a constraint for this application. Since the application fetches data from the database over the Internet, it is crucial that there is an Internet connection for the application to function.

GUI will be in URDU. It will entertain only users understanding their native language 'Urdu'.

Only admin will be able to make changes to data e.g. add, delete or change in few specified registers on proper approval from management. So admin will have web portal which will be accessed by login and password.

2.6 User Documentation

For user documentation and information, please consult section 3 External Interface Requirements.

2.7 Assumptions and Dependencies

The system is not dependent on any third-party API's or hardware except biometric device for thumb impression. If the biometric device is not working properly then it could cause problems in data entry.

If a data entry operator is illiterate who cannot understand reporting system then also system cannot proceed further.

3. External Interface Requirements

This section provides a detailed description of all inputs into and outputs from the system. It also gives a description of the hardware, software and communication interfaces and provides basic prototypes of the user interface.

3.1 User Interfaces

A user of this system can be a data entry operator or admin. User should see the Log-in page when they open the application, see Figure 1. Login as Data entry operator

Welcome to ITELLA

First ever complete digital FIR System around the Province.

Login in to see it in action.

Name

محرر نام

password

پاس ورڈ

☒

پاس ورڈ یاد رکھیں؟

Login

Figure 1 - Login page

If the user has not registered, they should be able to do that on the Log-in page. Every user should have a profile page where they can add data, edit data(reports) and check entries in every register, see Figure 2. In Figure 2, the list view for the FIR reports results is shown.

The data entry operator user can have access to some registers but the admin will have access to all the registers in this application.

اکاؤنٹ | نفری | رجسٹر | دفعات

نئی رپورٹ درج

ابتدائی اطلاعی رپورٹ

درخواست دہندہ | صفحہ نمبر | علت نمبر | کیفیت جرم | تفصیل

Figure 2 - Profile Page

The sorting header consist of 4 sections, that allow the user to sort the reports according to registers, account details and the more details of crime section as shown in figure 2. Each register includes information related to specific fields.

When a user wants to report an FIR, the data entry operator chooses option shown in figure 3.

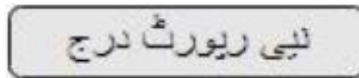


Figure 3 - Profile Page

3.2 Hardware Interfaces

Since neither the application nor the web portal have any designated hardware, it does not have any direct hardware interfaces. The hardware connection to the database server is managed by the underlying operating system on the operating system and the web server.

3.3 Software Interfaces

The Online Reporting system communicates with the KP data centre in order to get information from it. The communication between the database and the web portal consists of operation concerning both reading and modifying the data, while the communication between the database and the application consists of only reading operations.

3.4 Communication Interfaces

The Communication among the system, data center and browser comprises of these protocols FTP, HTTP, HTTPS. All messages consist of a fixed length-header containing the total data length and a request followed by a reply or an acknowledgement. Interaction among surrogates will be performed using HTTP or FTP. Encryption of data will be carried out through developed algorithms.

4. Specific Requirements

4.1 Functional requirements

This section includes the requirements that specify all the fundamental actions of the software system.

4.1.1 Functional requirement 1

ID: FR1

TITLE: FIR, Register No. 1

DESC: The first investigation report- In this register, the FIR is compiled against multiple accused or anonymous citizens who are nominated in the FIR. The Report is registered by a complainant, one or many witnesses are added in each FIR Report. There are 7 related registers that may be added to FIR, every register has unique sort of information related to the FIR. Details of all these seven FIR related registers are given below.

1. Position Muqqadima

The Register can be used to add the current position of FIR, that may show in which stage the FIR exists. If the position is closed it means the FIR is completed and all the accused have been arrested and brought before the concerned court.

2. Tafteshi Afsaraan

This register has the information about investigating officer who is working on current FIR's. Every FIR needs to be processed by investigating officers. This includes the name of the officer who is investigating the FIR and the date on which it is reported.

3. Naamzad Mulzimaan

This register can be used to add the information taken from the accused and the crime he has done according to the law. This entry is compulsory as it is concerned with the related FIR. It adds more data to the report.

4. Gawahaan

This register has the information about all the witnessed related to the crime scenes.

5. Masrooqa Maal

This register is used to add information about the Equitable goods like money, weapons, jewelry or any type of drugs collected from the concerned FIR reported. The complainant will be able to add new item form the drop down option. This register also contains information about the amount and cost (in RUPEES) of equitable goods found at the crime scenes/incidents.

6. Baraamdagi Maal

The information about the things collected from the crime scenes is reported in this register.

7. Mansheyat o Aslah

This register can be used to add detailed information for all the weapons, money or any type of drugs found at the place of incident. This includes the type of weapons, type of drugs, amount of money or any other thing related to that report.

4.1.2 Functional requirement 2

ID: FR2

TITLE: Roz-naamcha, Register No 2

DESC: This register can be used to add activities on daily basis like visit of investigation officer, movements of mobile vehicles and sections under investigation etc.

4.1.3 Functional requirement 3

ID: FR3

TITLE: Ro Poshaan Mafrooran, Register No 4

DESC: This register has the detailed information about the reports against fugitives committed crimes. This register contains the name of fugitive, his appearance and nationality, committed crimes and all other related details.

4.1.4 Functional requirement 4

ID: FR4

TITLE: Fouji bhagoragaan, Register No 4(3)

DESC: This register has the information about all the In-service Government fugitives and their details.

4.1.5 Functional requirement 5

ID: FR5

TITLE: 'khatt o kitaabat' Register No 5

DESC: This register contains the following information about letters sent and received by/from any Government and private sectors

1. Date of letter sent/received
2. Name of the receiver/sender
3. Description of letter.

4.1.6 Functional requirement 6

ID: FR6

TITLE: ‘Chaal Chalan’ Register No 6

DESC: This register is used to add the details related to the character of each and every Government staff including details about staff member personal details, recent post and job descriptions.

4.1.7 Functional requirement 7

ID: FR7

TITLE: Sazayaabi, Register No 9

DESC: This register can be used to add information about the crimes committed by the people in a specific village. This information includes the details of accused, its crime, the legal actions (section No) and court orders. Court Orders option is optional here.

4.1.8 Functional requirement 8

ID: FR8

TITLE: ‘ishtehari Mujrim’ Register No 10

DESC: This register relates the information about the most wanted criminals of the times having increased bounty on their heads. These are referred to as ‘Proclaimed Offenders’. This includes the name and details of suspected one, date of surrender or capture and details of detention.

4.1.9 Functional requirement 9

ID: FR9

TITLE: Index History Sheet, Register No 11

DESC: Register 11 has 2 parts. Index History Sheet and the other one is Radeetwar. These includes the complete history of the proclaimed offenders I.e

- Detailed history of PO,
- Starting date of history sheet,
- The principle file concerned with specific PO,
- The principle file related to PO in other Police stations.

4.1.10 Functional requirement 10

ID: FR10

TITLE: ‘Itelaa o rawaangi’ and ‘Itelaa o mausool’, Register No 12

DESC: This register also consists of 2 major parts.

1. Itelaa o rawaangi

2. Itelaa o mausool

‘Itelaa o rawaangi’ section includes the FIR’s reported against the accused person in current Police station but accessed belongs to some other area/district. So a letter is written to that Police station to inform them to add entry of such criminals in corresponding police station’s record and take some actions. While ‘Itelaa o mausool’ section includes the details of reports informed by other police stations.

This register is concerned of FIR’s of other Police stations.

4.1.11 Functional requirement 11

ID: FR11

TITLE: ‘Rayee Gazat shuda Afsaaran’, Register No 13

DESC: This register is basically a memorandum having information about the visits of Gazetted officers. This memorandum is concerned with the specific Police station.

4.1.12 Functional requirement 12

ID: FR12

TITLE: Mulazman Sarkaar and Maal e Sarkar, Register No 16

DESC: This register has 2 parts.

1. Mulazman Sarkaar

2. Maal e Sarkar

‘Mulazman Sarkaar’ section has the information of all the Police officers while the other section ‘Maal e Sarkar’ has all the information about goods.

4.1.13 Functional requirement 13

ID: FR13

TITLE: Maal Muqadamat, Register No 19

DESC: In this type of register, all the details of weapons, money and goods captured from accused related to FIR registered against him and what type of actions have been taken on it.

4.1.14 Functional requirement 14

ID: FR14

TITLE: Raseed Naqdi, Register No 22

DESC: This register includes all the details of total amount of money came into respected Thana.

4.1.15 Functional requirement 15

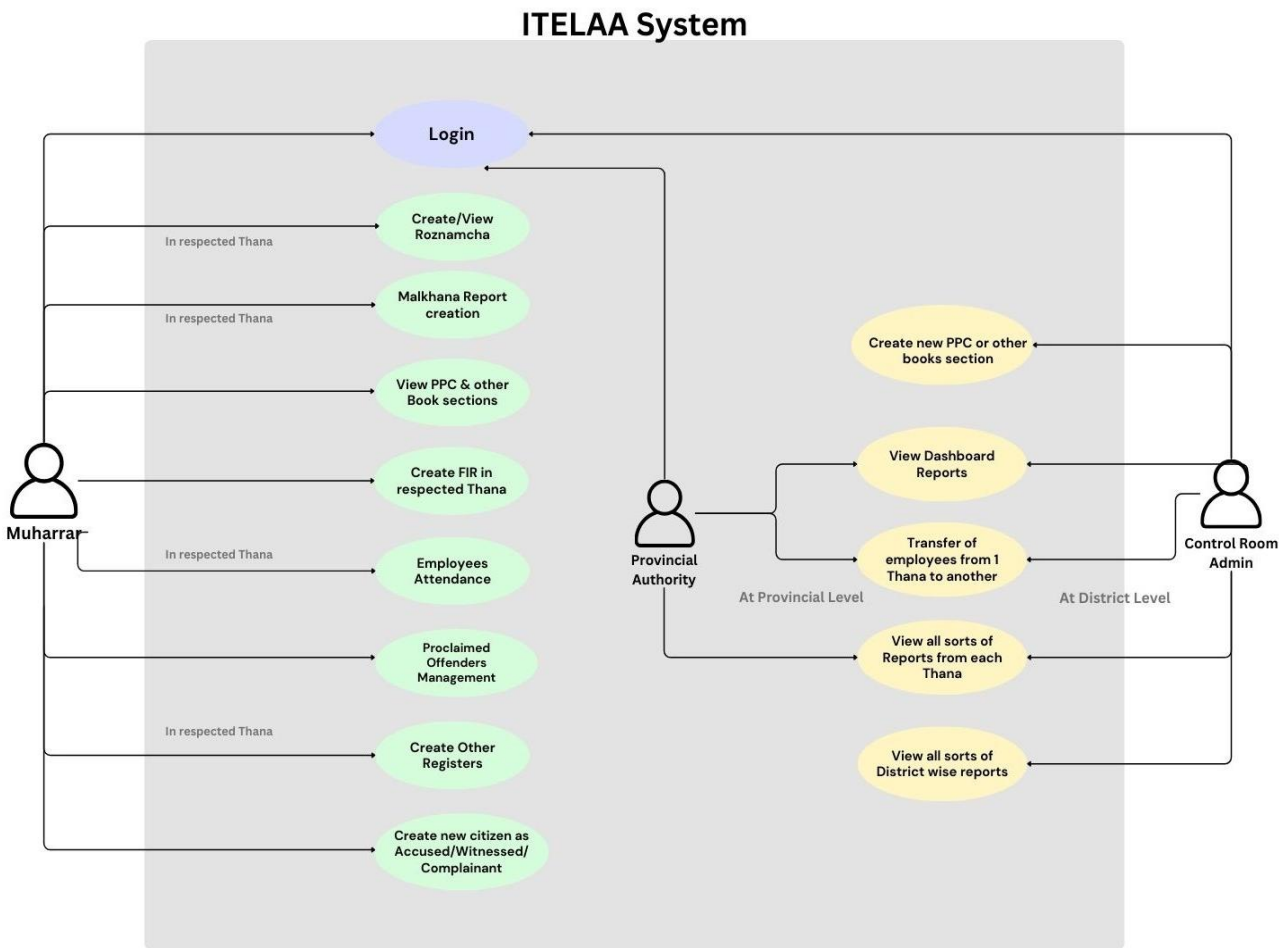
ID: FR15

TITLE: Certificate hayee Rahdaari, Register No 23

DESC: This contains details of money captured from accused/Thief/criminal. One copy of this certificate remains with in Thana and the other one for inquiries.

4.2 Behaviour Requirements

The behavior requirements are described using Use case Diagram.



5. Other Nonfunctional Requirements

5.1 Performance Requirements

The system must be interactive and the delays involved must be less. So in every action-response of the system, there are no immediate delays. In case of logging in, reporting data entries and memorandums there is delay much below 2 seconds.

In case of opening databases, sorting reports and evaluation there are no delays and the operation is performed in less than 2 seconds for opening, sorting, computing, posting > 95% of the registers. Also, when connecting to the server the delay is based editing on the distance of the 2 systems and the configuration between them so there is high probability that there will be or not a successful connection in less than 20 seconds for sake of good communication.

5.2 Safety

Information transmission should be securely transmitted to server without any changes in information.

Reliability

As the system provide the right tools for discussion, problem solving it must be made sure that the system is reliable in its operations and for securing the sensitive details.

5.3 Security Requirements

Access to the database should be restricted to people that are required to view information about Police stations. Passwords and ID's should be regulated to be at least a certain length and must contain non-alphanumeric characters in both the password and ID.

The user's web browser shall never display a customer's password. It shall always be echoed with special characters representing typed characters. The system's back-end servers shall only be accessible to authenticated administrators.

The system's back-end databases shall be encrypted.

5.4 Software Quality Attributes

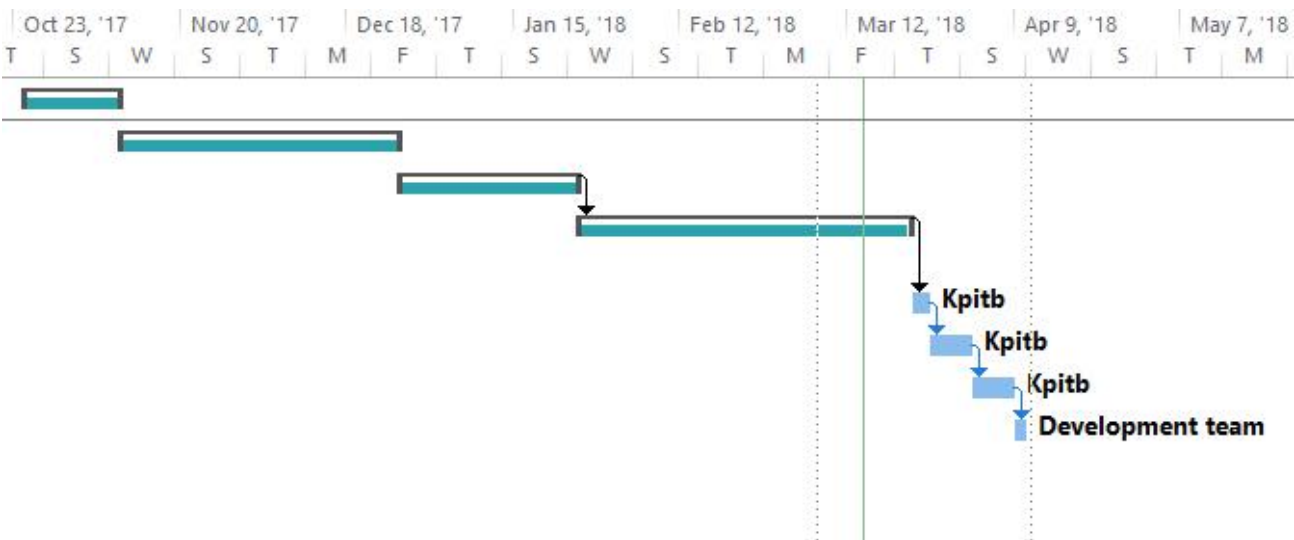
Availability

If the internet service gets disrupted while sending information to the server, the information can be sent again for verification.

Usability

As the system is easy to handle and navigates in the most expected way with no delays. In that case, the system program reacts accordingly and transverses quickly between its states.

5.5 Ganttchart



5.6 Closing Remarks

The **ITELAA** system marks a significant step toward modernizing the reporting and filing system for Police/Levies Stations. By leveraging a centralized digital platform, the system will streamline data management, enhance accessibility for authorized users, and improve overall operational efficiency. The detailed requirements and functionalities outlined in this document ensure that the system is secure, user-friendly, and adaptable to the needs of its users.

With the implementation of **ITELAA**, law enforcement agencies will benefit from better resource management, more accurate reporting, and faster access to critical information. This advancement promises to support effective policing and improve public safety across District Malakandh.