ANDROID SECURITY

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ABSTRACT:
In this application which is useful for the user when he is in some problem or needs any help. When the user opens this application, he can see a HELP button. Also he can store a message and 3 contact numbers. When the user is in some difficulty or needs any help,

1.1 Purpose of the Project

When the user is in some difficulty or needs any help, he needs to simply open the app and click on the "HELP" button. This application sends the message to those contact numbers which he has stored.

1.2 Scope of the Project

Android application which is useful for the user when she is in some problem or needs any help. When the user opens this application, he can see a HELP button. Also he can store a message and 3 contact numbers. When the user is in some difficulty or needs any help, he needs to simply open the app and click on the "HELP" button.

1.3 Features of the Project

To reduce user effort and solve problems inherent to the cellular phones small screen, several functions are provided on the cellular viewer.
• Supports multiple connections at the same time.
• Different work modes: "view only" and "full control".
• Different display modes: "windowed", "full screen", and "scaled".
• Runs as a service on the NT systems.
• Works through the firewalls and supports DHCP.
• Supports high screen resolutions and color depths.

SYSTEM ANALYSIS AND DESCRIPTION

2.1 Existing System:

In the existing system, the user has to write the message content and select the contacts and only then he can send the message but what if the user do not have that much time or unable to do it.

2.2 Proposed System:

In this proposed system, the user writes the message content and also selects the contacts to which the message has to be sent and save it. So, when he is in some danger by just opening the app and pressing the HELP button, the message stored will be sent to those numbers he has added in this application. So that he can receive the help in correct time.

2.2.1 Advantages:

• Through this web application we can save the time, we can efficiently get succeed in implementing all the requests within short span of time.

2.3.1 Modules and Functionalities Modules Are…..

Help Button Adding Contacts Messages

2.4 Feasibility Study:

The next step in analysis is to verify the feasibility of the proposed system. "All projects are feasible given unlimited resources and infinite time". But in reality both resources and time are scarce. Project should confirm to time bounce and should be optimal in their consumption of resources. This place a constant

is approval of any project.

Feasibility they are 3 types:
• Technical feasibility
• Operational feasibility
• Economic feasibility

2.4.1 Technical Feasibility:

To determine whether the proposed system is technically feasible, we should take into consideration the technical issues involved behind the system.

This Application uses the web technologies, which is rampantly employed these days worldwide. The world without the web is incomprehensible today. That goes to proposed system is technically feasible.

2.4.2 Operational Feasibility:

To determine the operational feasibility of the system we should take into consideration the awareness level of the users. This system is operational feasible since the users are familiar with the technologies and hence there is no need to gear up the personnel to use system. Also the system is very friendly and to use.

2.4.3 Economic Feasibility:

To decide whether a project is economically feasible, we have to consider various factors as:
• Cost benefit analysis
• Long-term returns
• Maintenance costs

It requires average computing capabilities and access to internet, which are very basic requirements and can be afforded by any organization hence it doesn't incur additional economic overheads, which renders the system economically feasible.

3. IMPLEMENTATION
3.1 JAVASCRIPT

Java script originally supported by Netscape navigator is the most popular web scripting language today. Java script lets you embedded programs right in your web pages and run these programs using the web browser. You place these programs in a <SCRIPT> element, usually with in the <HEAD> element. If you want the script to write directly to the web page, place it in

the <BODY> element..

3.2 JDBC DRIVERS:

The JDBC API only defines interfaces for objects used for performing various database-related tasks like opening and closing connections, executing SQL commands, and retrieving the results. We all write our programs to interfaces and not implementations. Either the resource manager vendor or a third party provides the implementation classes for the standard JDBC interfaces. These software implementations are called JDBC drivers. JDBC drivers transform the standard JDBC calls to the external resource manager-specific API calls. The diagram below depicts how a database client Written in java accesses an external resource manager using the JDBC API and JDBC driver:
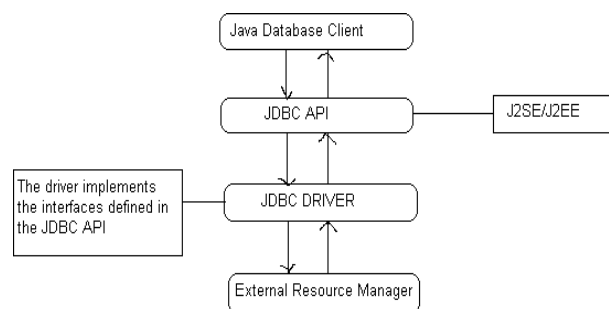

Fig: 3.2jdbc drivers

TYPE1:
Type1 JDBC drivers implement the JDBC API on top of a lower level API like ODBC. These drivers are not generally portable because of the independency on native libraries. These drivers translate the JDBC calls to ODBC calls and ODBC sends the request to external data source using native library calls. The JDBC- ODBC driver that comes with the software distribution for J2SE is an example of a type1 driver.

TYPE2:
Type2 drivers are written in mixture of java and native code. Type2 drivers use vendors specific native APIs for accessing the data source. These drivers transform the JDBC calls to vendor specific calls using the vendor's native library.

These drivers are also not portable like type1 drivers because of the dependency on native code.

TYPE3:

Type3 drivers use an intermediate middleware server for accessing the external data sources. The calls to the middleware server are database independent. However, the middleware server makes vendor specific native calls for accessing the data source. In this case, the driver is purely written in java.

TYPE4:

Type4 drivers are written in pure java and implement the JDBC interfaces and translate the JDBC specific calls to vendor specific access calls. They implement the data transfer and network protocol for the target resource manager. Most of the leading database vendors provide type4 drivers for accessing their database servers.

3.2.1 DRIVER MANAGER AND DRIVER:

The java.sql package defines an interface called Java.sql .Driver that makes to be implemented by all the JDBC drivers and a class called java.sql. Driver Manager that acts as the interface to the database clients for performing tasks like connecting to external resource managers, and setting log streams. When a JDBC client requests the Driver Manager to make a connection to an external resource manager, it delegates the task to an appropriate driver class implemented by the JDBC driver provided either by the resource manager vendor or a third party.

3.2.2 JAVA.SQL.DRIVER MANAGER:

The primary task of the class driver manager is to manage the various JDBC drivers register. It also provides methods for:

• Getting connections tothe databases.
• Managing JDBC logs

3.2.3 MANAGING DRIVERS:

JDBC clients specify the JDBC URL, when they request a connection. The driver manager can find a driver that matches the request URL from the list of register drivers and delegate the connection request to that driver if it finds a match JDBC URLs normally take the following format:

<Protocol>:<sub-protocol>:<resource>

The protocol is always jdbc and the sub-protocol and resource depend on the type of resource manager. The URL for postgre SQL is in the format:

Jdbc: postgres ://< host> :< port>/<database>

Here host is the host address on which post master is running and database is the name of the database to which the client wishes to connect.

3.3 JAVA SERVER PAGES (JSP)
3.3.1 INTRODUCTION:

Java Server Pages (JSP) technology enables you to mix regular, static HTML with dynamically generated content. You simply write the regular HTML in the normal manner, using familiar Web-page-building tools. You then enclose the code for the dynamic parts in special tags, most of which start with <% and end with%>.

3.3.2 THE NEED FORJSP:

Servlets are indeed useful, and JSP by no means makes them obsolete. However,

• It is hard to write and maintain the HTML.
• You cannot use standard HTML tools.
• The HTML is inaccessible to non- Java developers.

3.3.3 BENEFITS OF JSP:

JSP provides the following benefits over servlets alone:

• It is easier to write and maintain the HTML: In this no extra backslashes, no double quotes, and no lurking Javasyntax.

• You can use standard Web-site development tools:

We use Macromedia Dreamweaver for most of the JSP pages. Even HTML tools that know nothing about JSP can be used because they simply ignore the JSP tags.

• You can divide up your development team:

The Java programmers can work on the dynamic code. The Web developers can concatenate on the representation layer. On large projects, this division is very important. Depending on the size of your team and the complexity of your project, you can enforce a weaker or stronger separation between the static HTML and the dynamic content.

3.3.4 TYPES OF JSPSCRIPTING ELEMENTS:

JSP scripting elements allow you to insert Java code into the servlet that will be generated from the JSP page. There are three forms:

• Expressions of the form <%=Java Expression %>, which are evaluated and inserted into the servlet's output.

• Scripts of the form <%Java code %>, which are inserted into the servlet's_ jsp Service method (called by service).

• Declarations of the form<%! Field/Method Declaration

%>, which are inserted into the body of the servlet class, outside any existing methods.

3.3.5 PREDEFINED VARIABLES:

To simplify expressions we can use a number of predefined variables (or "implicit objects"). The specialty of these variables is that, the system simple tells what names it will use for the local variables in _jsp Service. The most important ones of these are

4. TESTING

4.1 SOFTWARE TESTING Software testing is a critical element of software quality assurance and represents the ultimate review of specification, design and code generation.

4.1.1 TESTINGOBJECTIVES

• To ensure that during operation the system will performas per specification.

• TO make sure that system meets the user requirements during operation

• To make sure that during the operation, incorrect input, processing and output will be detected

• To see that when correct inputs are fed to the system the outputs are correct

• To verify that the control incorporated in the same system asintended

• Testing is a process of executing a program with the intent of finding an error

A good test case is one that has a high probability of finding an as yet undiscovered error

The software developed has been tested successfully using the following testing strategies and any errors that are encountered are corrected and again the part of the program or the procedure or function is put to testing until all the errors are removed. A successful test is one that uncovers an as yet undiscovered error.

Note that the result of the system testing will prove that the system is working correctly. It will give confidence to system designer; users of the system prevent frustration during implementation process etc.

4.2 TEST CASEDESIGN:

4.2.1 White box testing

White box testing is a testing case design method that uses the control structure of the procedure design to derive test cases. All independents path in a module are exercised at least once, all logical decisions are exercised at once, execute all loops at boundaries and within their operational bounds exercise internal data structure to ensure their validity. Here the customer is given three chances to enter a valid choice out of the given menu. After which the control exits the current menu.

4.2.2 Black Box Testing

Black Box Testing attempts to find errors in following areas or categories, incorrect or missing functions, interface error, errors in data structures, performance error and initialization and termination error. Here all the input data must match the data type to become a valid entry.

The following are the different tests at various levels:

4.2.3 Unit Testing:

Unit testing is essentially for the verification of the code produced during the coding phase and the goal is test the internal logic of the module/program. In the Generic code project, the unit testing is done during coding phase of data entry forms whether the functions are working properly or not. In this phase all the drivers are tested they are rightly connected or not.

4.2.4 Integration Testing:

All the tested modules are combined into sub systems, which are then tested. The goal is to see if the modules are properly integrated, and the emphasis being on the testing interfaces between the modules. In the generic code integration testing is done mainly on table creation module

and insertion module.

5. CONCLUSION

In this project to use which is useful for the user when he is in some problem or needs any help. When the user opens this application, he can see a HELP button. Also he can store a message and 3 contact numbers. When the user is in some difficulty or needs any help button. So when the user opens this application, can see a HELP button. Click that button to send sms to register user.

1. Advanced Java Programming
- Dietel and Dietel
2. Mastering JAVA 2
- John Zukowski
3. Java Server Programming A press
4. Software Engineering
- Roger S Pressman
5. Análysis & Design of Information Systems –Senn

IDE		-Eclipse with Adt Plugin
Operating System		-Windows
SDK		-Android Sdk 2.3

Websites:
1. www.eci.gov.in
2. www.google.com
3. www.apeci.com

We will be using the information collected from websites for android
1. http://developer.android.com/index.html
2. http://www.android-trainer.com/
3. http://stackoverflow.com/4.http://www.google.co.in/