



# *East West University*

Department of  
Electronics and Communication Engineering

## *First Aid-An Android Application*

B.Sc Project on Electronics & Telecommunication Engineering

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**First Aid –An Android Application**



First Aid –An Android Application



## Supervisor's Statement

Hereby I confirm that the present project was prepared under my supervision and that it fulfills all the requirements for the Bachelor degree of Electronics & Telecommunication Engineering.

.....  
.....

Date

....

Supervisor's Signature



## Author's Statement

Hereby I Declare that the present project was prepared by me and none of its contents was obtained by means that are against the law.

The project has never before been a subject of any procedure of obtaining an academic degree.

Moreover, I declared that the present version of the project is identical.

.....  
Selina Afroz

.....  
Maha choudhury



## **Acknowledgement**

First I would like to express my sincere gratitude to God that I could complete my project. Then I am externally grateful to parents for their constant support through put my academic work.

I am extremely fortunate towards my supervisor Mustafa Mahmud Hussain for helping me throughout the project. He helped me in every possible way for completing my project.

I am also thanks to my classmate for inspiring me to choose mobile apps as a project.

I am also thanks to Pial and Amit for helping me to complete my project.



## **Abstract**

My task was to design and implement an android application that would enable users to interact as a guide. The dedicated application supports IOS and android all version .The significant part was dedicated for designing and implementing a restful API which constitutes communication protocol between client application and the web service. First Aid application takes advantage of many solutions and techniques for the android platform. It has been optimized according to the practices recommended by Google in order to increase user experience and reduce power consumption. The application is design in such a way that provides medical services to mass people with a platform for instant, Personalized.



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# Chapter 1

## **Introduction**

We know what the value of our life is? But, there are situations in which it falls in danger and sometimes without appropriate steps that need to be taken, lives are lost. A drop of water is more valuable to a man who is thirsty, nearing to “death than a tumbler full of water when he is dead.” Yes, in most of the cases of injury, if first aid is provided successfully, the dangers to life are reduced to less than 60%. However, in most of the cases in which the injured is serious, lack of first aid leads the injured to his last breath. This project has been intentioned to be viewed as a pocket first aid guide which can be used for reference during emergencies. Readers may find guidelines, which contain steps that need to be taken to give first aid for Anaphylaxis, Animal-bites, burns, black-eye, blisters, bruise, chemical burns, chest-pain, choking, corneal-abrasion, cuts-and-scrapes, dislocation, frostbite, gastroenteritis, head-pain, head-trauma, heart-attack, heat cramps and a lot of other cases which first aid can prove to be the life saving action.

First Aid is a set of measures which need to be taken in order to prevent any further harm being done to the body of an injured person in case of an accidental injury. First aid has three main objectives.....

1. To preserve life of the injured .Definitely, the main objective of providing first aid to the injured is that life of the injured can be saved. The life of the injured must not be lost just because no one was there to provide first aid – this is the main objective of first aid.
2. To prevent deterioration of the condition – The first aider needs to make sure that the condition of the injured does not deteriorate otherwise the first objective might fail.
3. To promote recovery of the injured –

If the first and the second objectives are successfully meet, then the first aid provider must try to take the injured to the doctor in case of availability. Otherwise, he / she must try his best to do what he /she can do in order to support recovery of the injured.\_\_\_\_\_



## Chapter 2

### 2.1 Application Frame Work

Even though the android is a relatively new system, it comes with good documentation, which can be found on the official development page ([AND]). There is a number of publications and course books for people who seek basic information and introduction to the system. Additionally, a very large community of developers is actively exchanging question and answer on web service like Google group ([ADG]), android blog ([ADB]) or stack overflow ([ASO]). It does not make sense to quote big fragments of android developers guide. Instead, this section covers the fundamental aspects of designing an Android application which are necessary in order to understand the following discussion about First Aid app.

### 2.2 Main application components

To begin to program for android we need some basic, because some elements are very different, even if programming an application in Android uses the java language, therefore, an object oriented language.

All Android application contain more of the following components

#### 2.2.1 Activity

An activity is a user interface that allows the user to interact with the screen, to perform actions. For example, a text messaging application could have an activity that displays a list of contacts to send messages. Once the contact is selected, activity could send information to a second activity that could serve to send the message to the contact.

When an application is launched, what is displayed is the result of an activity. At the code level, for create an activity; we must create a class that extend the activity class. An activity has a required on create() method. To interact with the program, through the activity, there must be something displayed, that is why the activity, contains what is called views.

#### 2.2.2 View

A view is the basic building block for user interface components. A view occupies a rectangular area on the screen. View is the base class for the widget, which are used to create



interactive UI components. There is different kinds of view, for example a List View is able to display only an interactive list of what we want to display, while we web view allow us to display a webpage. As said before, a view occupies a rectangular area on the screen. To organize these rectangles on the screen, there is a text file written in the XML for every different screen.

### 2.2.3 XML

XML means Extensible Markup Language. Android provides a straight forward XML vocabulary that corresponds to the view classes and sub classes. The goal of using Android XML vocabulary, is to quickly design UI layouts and the screen elements they contain, in the same way that creating web pages in HTML: with a series of nested elements.

### 2.2.4 Intent

An activity can of course start another one, even if it but to do this, it will need special object called intent. Intent is basic description of an operation to be performed. It can launch an Activity, send a broadcast intent to any interested Broadcast receiver components, and communicate with a background service. Intent performs binding between the codes indifferent applications. It can be thought of as the link between activities. It is possible to add some information to an intent, thanks to an object called bundle that we add to the intent thanks to the method.

```
Intent.putExtra(Bundle objectbundle);
```

## 2.3 Android Manifest

AndroidMainifest.xml file is necessary for all android applications and must have this name in its root directory. In the manifest we can find essential information about the application for the android system, information that the system must have before it can run any of the application's code. Here is what we can find in the Android manifest:

-The name of the Java package for the application. The package name serves as a unique identifier for the application.

-The description of the components of the application: the activities, services, broadcast receivers, and content providers that the application is composed of and under what conditions they can be launched.

-The process that will host application components.



-The permissions the application must have in order to access protected parts of the API and interact with other applications.

-The permissions that others are required to have in order to interact with the application's components.

-The list of the instruments classes that provide profiling and other information as the application is running. These declarations are present in the manifest only while the application is published.

-The minimum level of the Android API that the application requires.

-The list of the libraries that the application must be linked against.

With all these elements, an application can be created



## Chapter 3

Snapshot and overview of First Aid



## **Description about the App:**

It's absolutely free and simple to download.

Also features a Hospital finder and a handy device enabling parents to record their child's medication needs. Get this essential app on your Android device now.

### **LEARN**

Simple, easy-to-understand advice.

### **PREPARE**

Get expert tips on how to prepare for some of the most common emergency situations, from accidents in the garden to a fire at home. Sections include a list of tips and handy checklist.

### **EMERGENCY**

Act fast when things go wrong. This instantly accessible, step-by-step section gives you the key information to know what to do in emergency first aid situations.

### **TESTS**

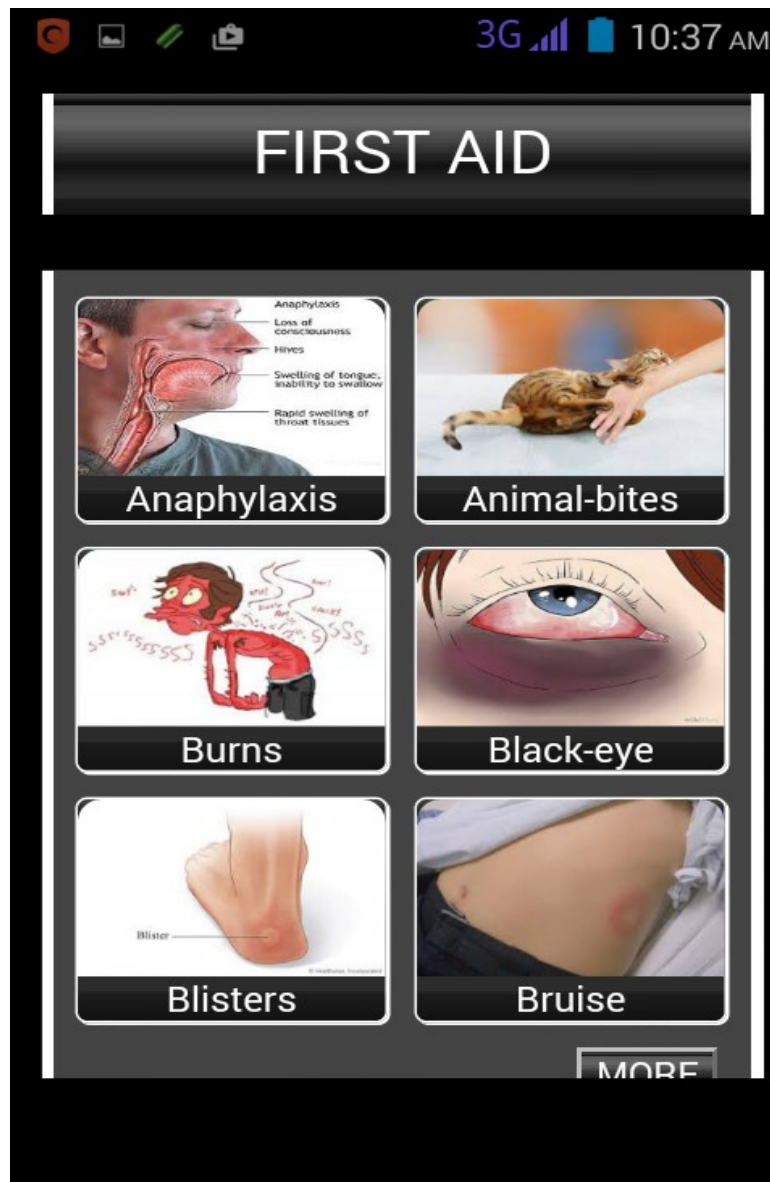
find out how much you've learned in our test section, which provides a useful opportunity to check that you've picked up all the necessary skills.

Download this essential app today.



## Materials

This is the first screen. This is the First Aid Menu. Where a user can select his desired menu



Click more options and next page will come.



# FIRST AID



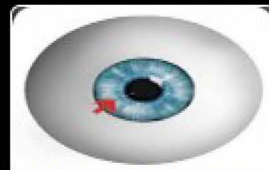
Chemical-burns



Chest-pain



Choking

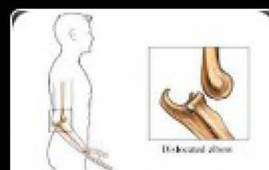


Corneal-abrasion



Cuts, Scratches,  
and Scrapes

Cuts-and-scrapes



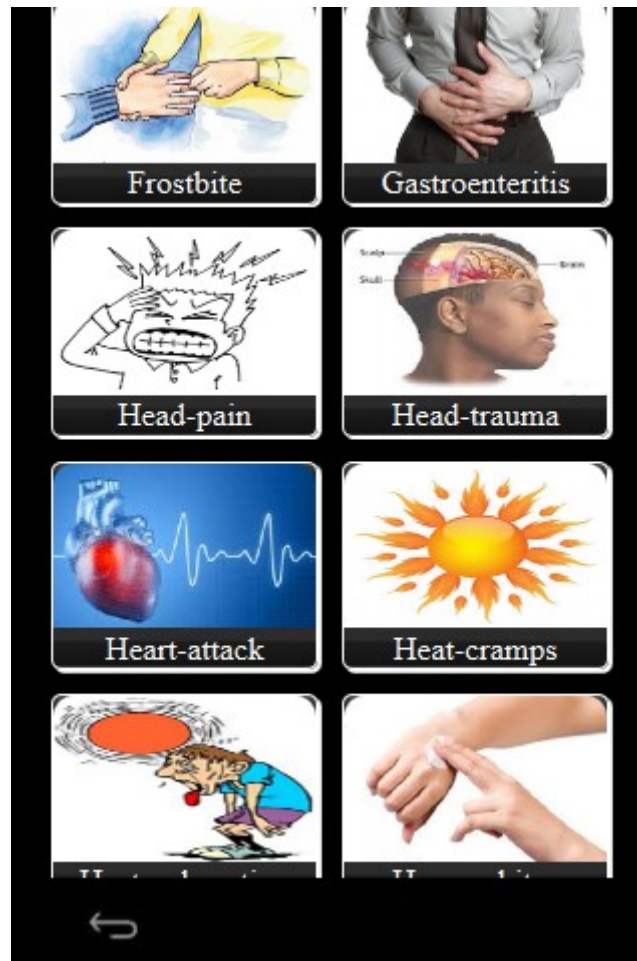
Dislocation





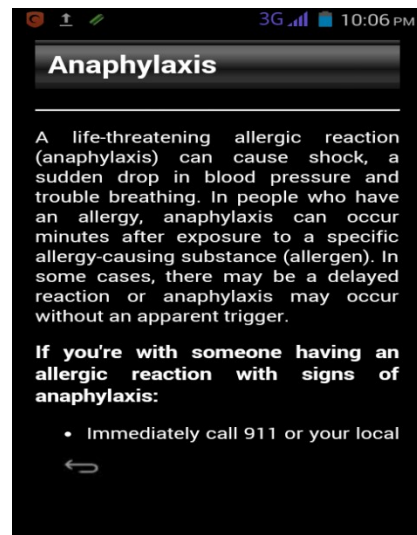
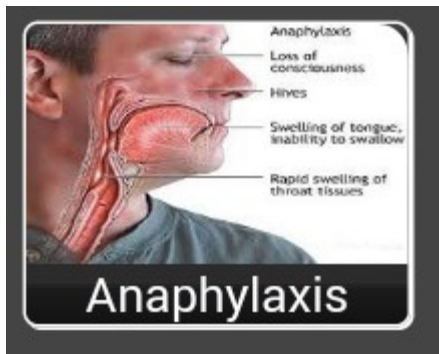
## Procedure:

Click more options and next page will come.



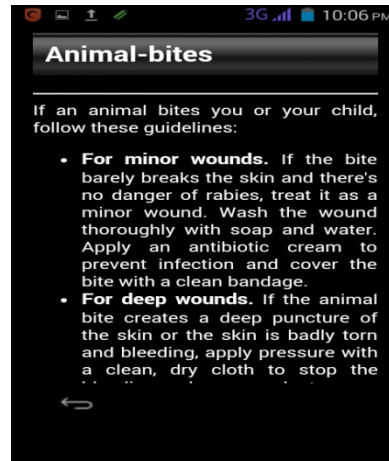
This is the MENU page. A user can choose his desire menu button. If any user touches the “**Anaphylaxis**” Menu and so on .Button he will get about the diseases and get desire information about symptoms and some precautions.



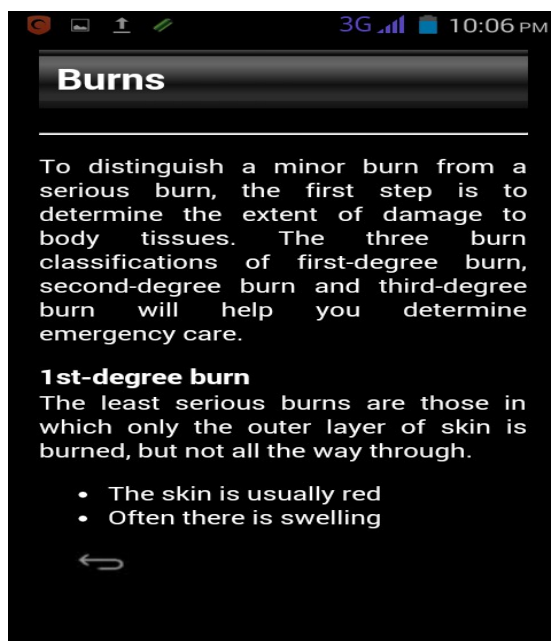
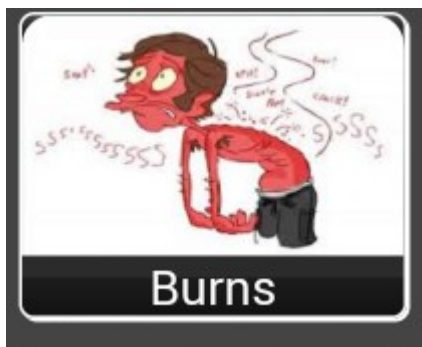


If any user touches the **“Animal bites”** Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.

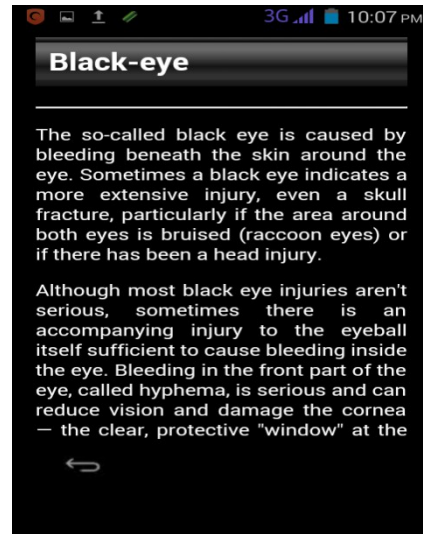
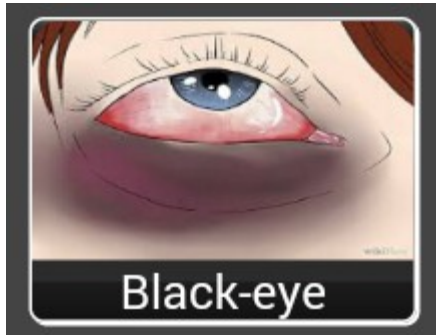




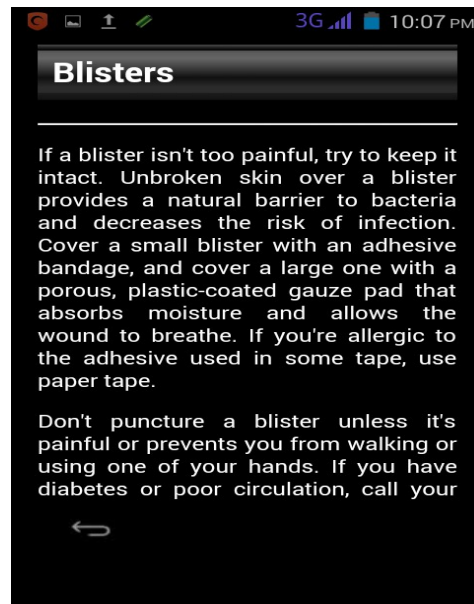
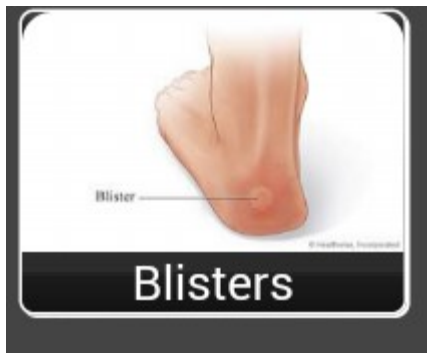
If any user touches the “**Burns**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.



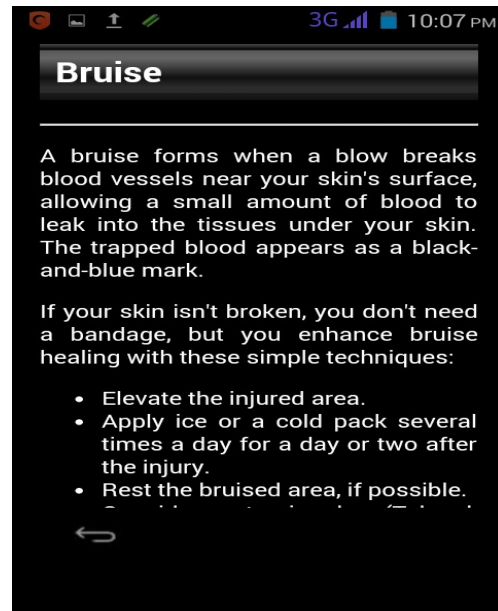
If any user touches the “**Black-eye**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.



If any user touches the “**Blisters**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.

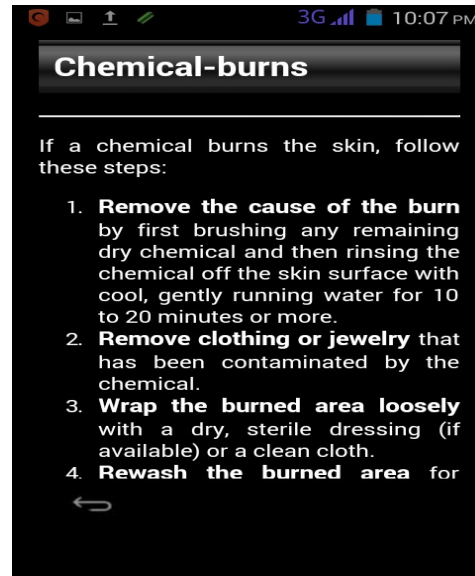


Next If any user touches the “**Bruise**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.

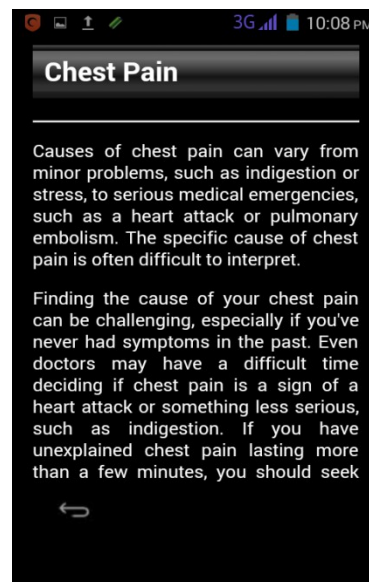


If any user touches the “**Chemical burns**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.



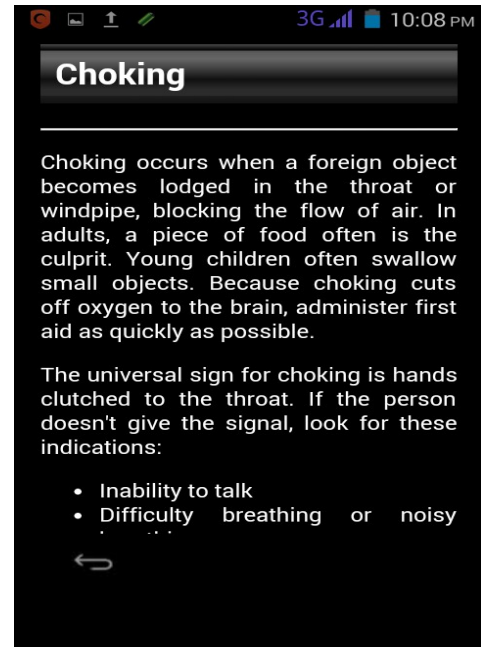
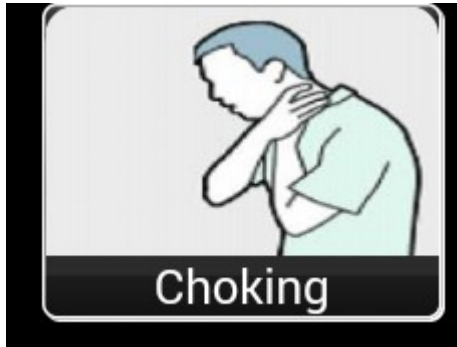


If any user touches the “**Chest pain**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.

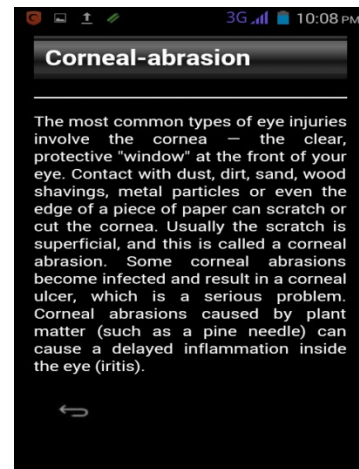
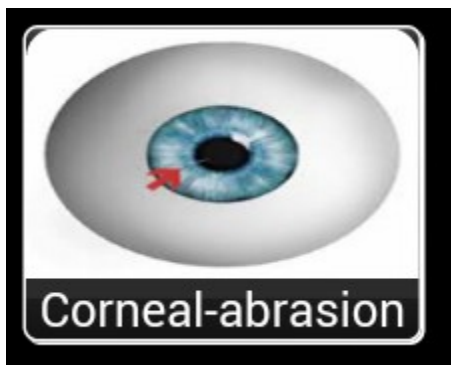


If any user touches the “**choking**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.



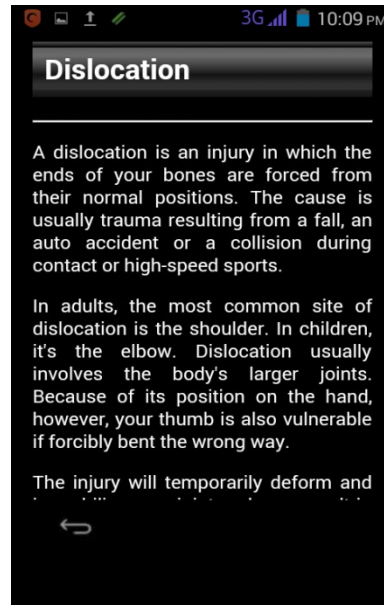
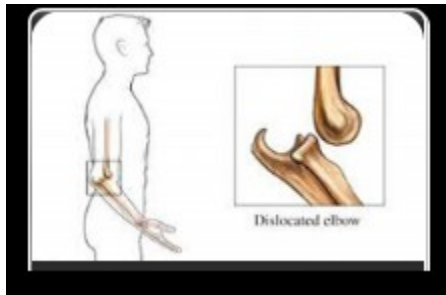


If any user touches the “**Corneal-abrasion**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.

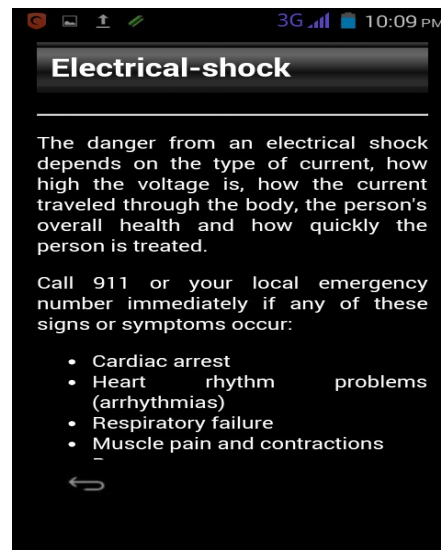
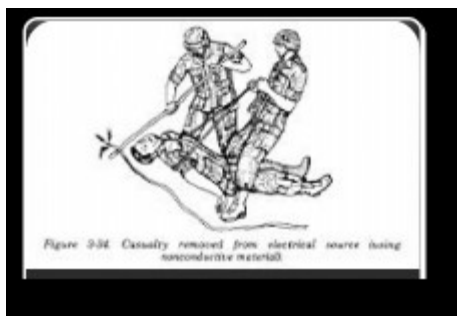


If any user touches the “**Dislocation**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.



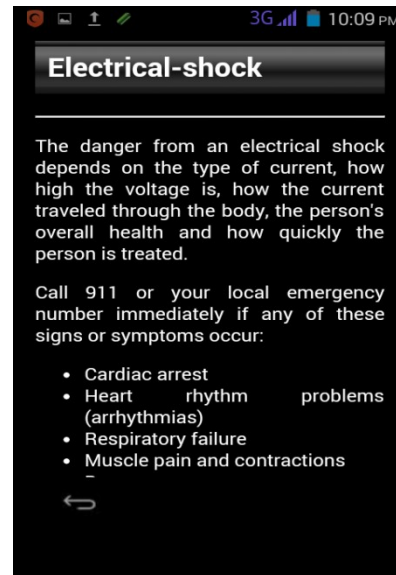
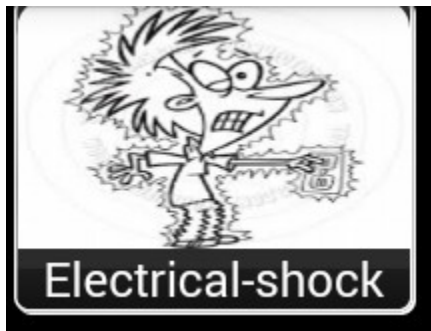


If any user touches the “**Electrical-shock**” menu button. He will get about the diseases and get desire information about symptoms and some precautions.



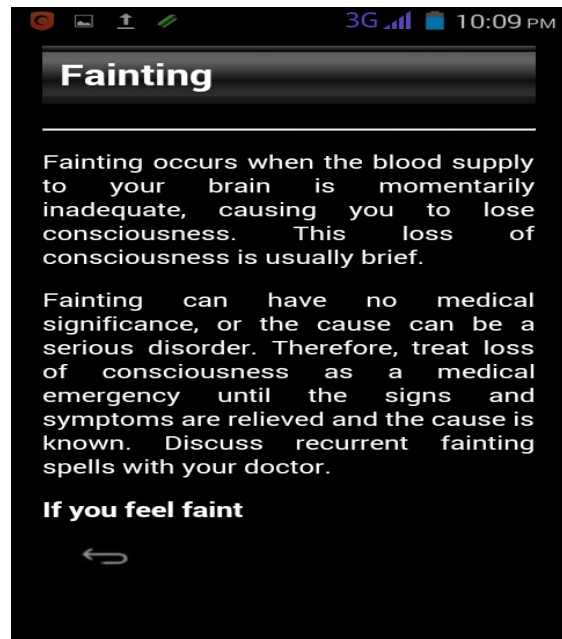
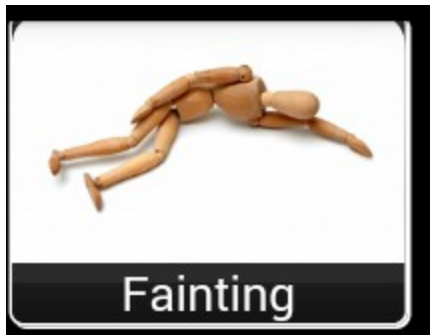


If any user touches the “**Electrical-shock**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.

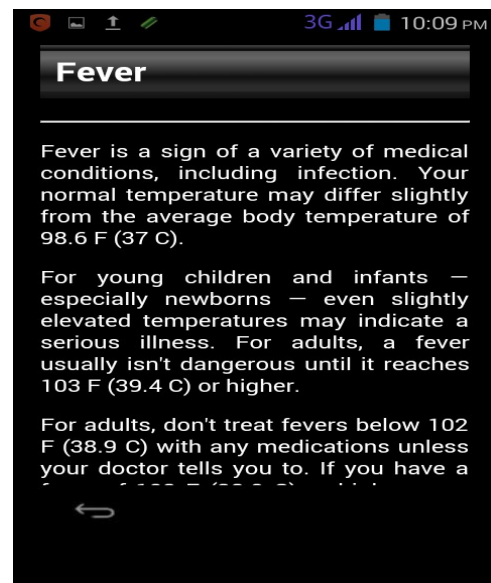


If any user touches the “**Fainting**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.





If any user touches the “**fever**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.



If any user touches the “**Frostbite**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.





3G 10:09 PM

## Frostbite

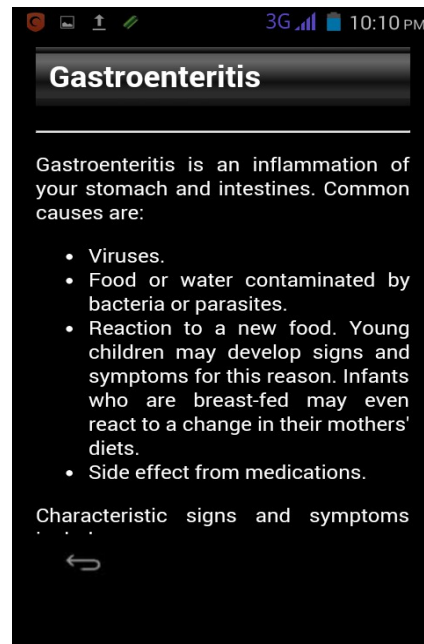
A fracture is a broken bone. It requires medical attention. If the broken bone is the result of major trauma or injury, call 911 or your local emergency number. Also call for emergency help if:

- The person is unresponsive, isn't breathing or isn't moving. Begin cardiopulmonary resuscitation (CPR) if there's no respiration or heartbeat.
- There is heavy bleeding.
- Even gentle pressure or movement causes pain.
- The limb or joint appears deformed.

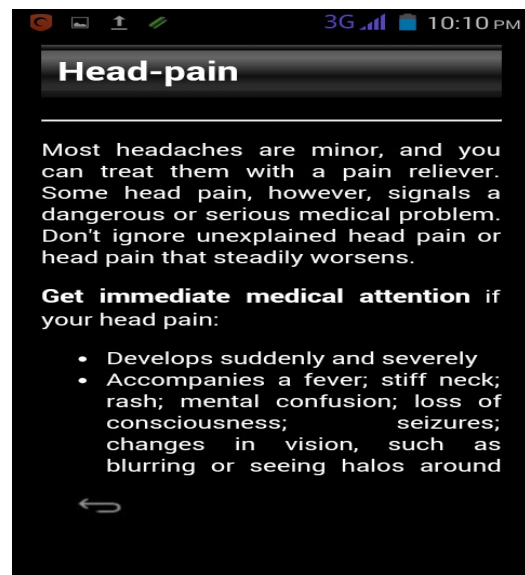
←



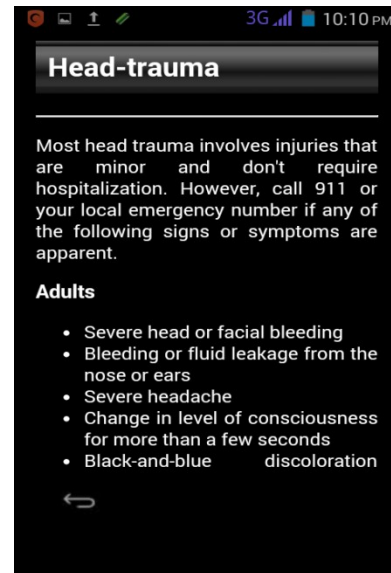
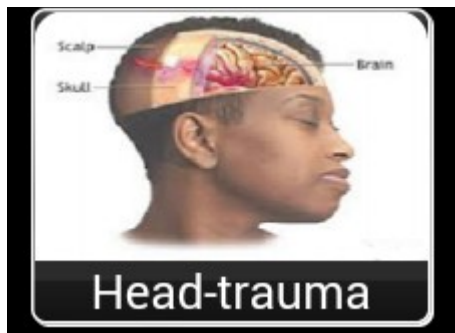
If any user touches the “**Gastroenteritis**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.



If any user touches the “**head-pain**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.

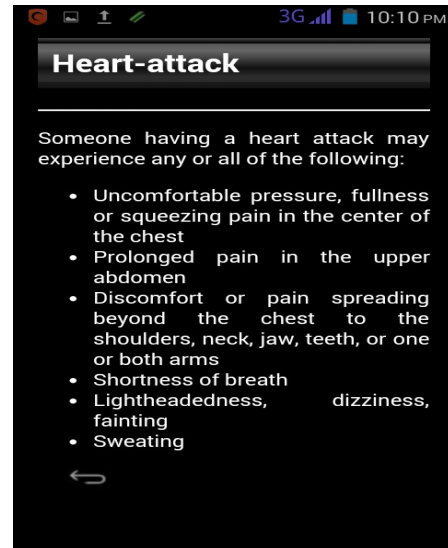


If any user touches the “**Head-trauma**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.



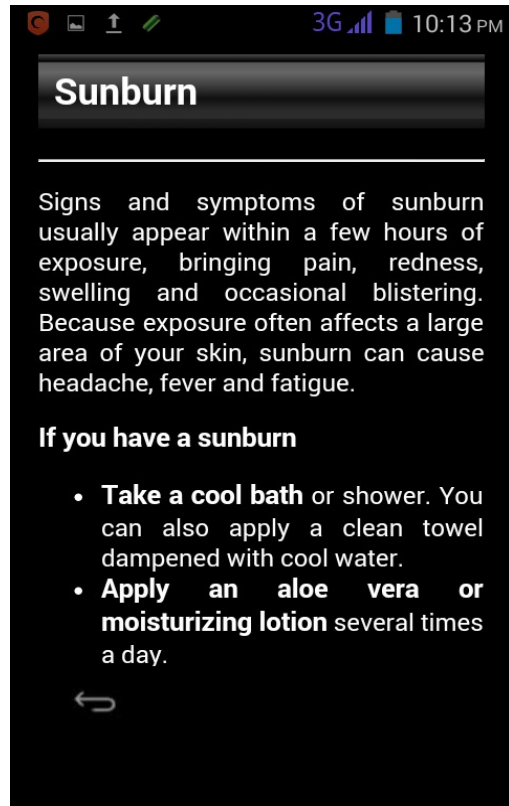
If any user touches the “**Heart-attack**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.





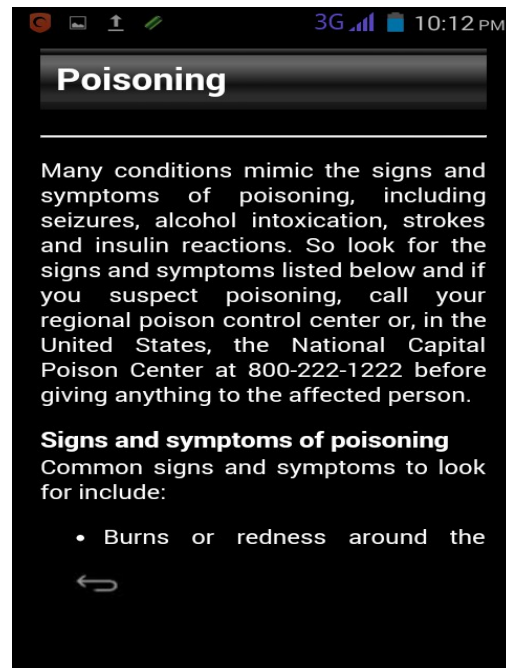
If any user touches the “**Sunburn**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.





If any user touches the “**Poisoning**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.

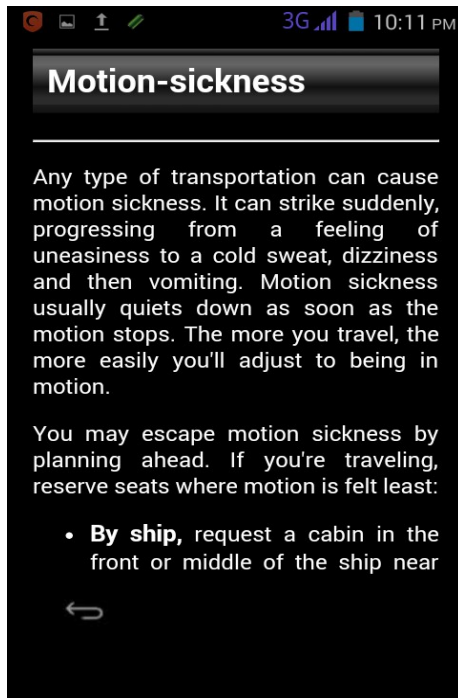




If any user touches the “**Motion-sickness**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.



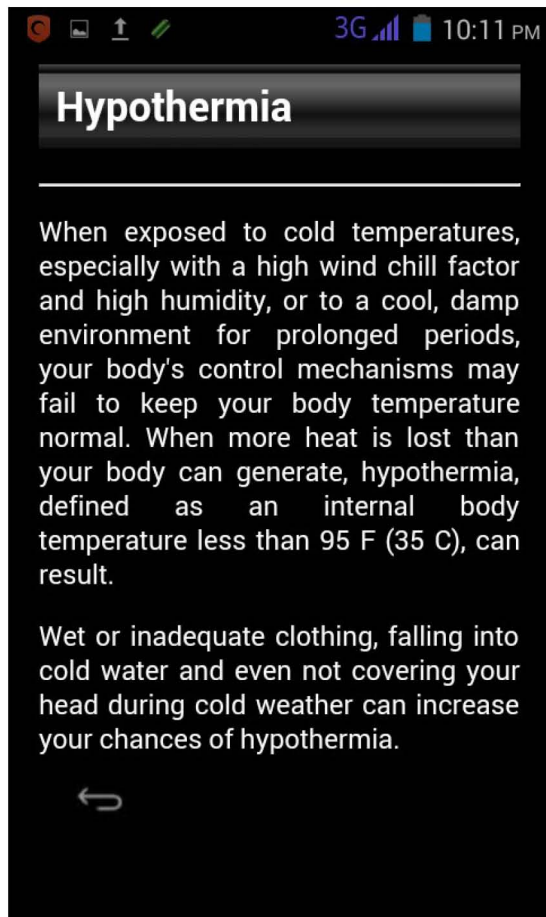




If any user touches the “**Hypothermia**” Menu Button. He will get about the diseases and get desire information about symptoms and some precautions.



**First Aid –An Android Application**



## Chapter 4



## **Main activity.java :**

```
package aps.firstaid;

import org.apache.cordova.DroidGap;

import android.os.Bundle;

import android.view.KeyEvent;

import android.view.Menu;

import android.widget.LinearLayout;

import android.widget.Toast;

import com.google.android.gms.ads.*;

public class MainActivity extends DroidGap {

    private AdView adView;

    @Override

    public void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        super.loadUrl("file:///android_asset/www/index.html");

        super.setIntegerProperty("loadUrlTimeoutValue", 70000);

        // Create the adView.

        adView = new AdView(this);
```



```
adView.setAdSize(AdSize.BANNER);
adView.setAdUnitId("ca-app-pub-6563089157994897/1297430937");
LinearLayout layout = super.root;
layout.addView(adView);

    AdRequest request = new AdRequest.Builder()
.addTestDevice(AdRequest.DEVICE_ID_EMULATOR)
.build();

    // Start loading the ad in the background.
    adView.loadAd(request);
}
```

```
private long lastPressedTime;
```

```
private static final int PERIOD = 1000;
```

```
@Override
```

```
public boolean onKeyDown(int keyCode, KeyEvent event) {
    if (event.getKeyCode() == KeyEvent.KEYCODE_BACK) {
        switch (event.getAction()) {
            case KeyEvent.ACTION_DOWN:
```



```

        if (event.getDownTime() - lastPressedTime < PERIOD) {
            finish();
        } else {
            Toast.makeText(getApplicationContext(), "Press Back Twice To
Exit",
                Toast.LENGTH_SHORT).show();
            lastPressedTime = event.getTime();
        }
        return true;
    }
}
return false;
}
@Override
public boolean onCreateOptionsMenu(Menu menu) {
    // Inflate the menu; this adds items to the action bar if it is present.
    getMenuInflater().inflate(R.menu.main, menu);
    return true;
}
}
}

```



## Android manifest Editor

```
<?xml version="1.0" encoding="utf-8" ?>
= <manifest xmlns:android="http://schemas.android.com/apk/res/android"
  package="aps.firstaid" android:versionCode="1" android:versionName="1.0">
  <uses-sdk android:minSdkVersion="8" android:targetSdkVersion="21" />
  - <!--
    Include required permissions for Google Mobile Ads to run
    -->

  <uses-permission android:name="android.permission.INTERNET" />
  <uses-permission android:name="android.permission.ACCESS_NETWORK_STATE" />

  = <application android:allowBackup="true" android:icon="@drawable/ic_launcher"
    android:label="@string/app_name" android:theme="@style/AppTheme">
    - <!--
      This meta-data tag is required to use Google Play Services.
      -->

    <meta-data android:name="com.google.android.gms.version"
      android:value="@integer/google_play_services_version" />

    = <activity android:name=".MainActivity" android:label="@string/app_name">

    = <intent-filter>
```



```
<action android:name="android.intent.action.MAIN" />
<category android:name="android.intent.category.LAUNCHER" />
```

```
</intent-filter>
```

```
</activity>
```

```
- <!--
```

```
Include the AdActivity configChanges and theme.
-->
```

```
<activity android:name="com.google.android.gms.ads.AdActivity"
android:configChanges="keyboard|keyboardHidden|orientation|screenLayout|uiMode|screenSize|smallestScreenSize" android:theme="@android:style/Theme.Translucent" />
</application>
</manifest>
```



## Chapter 5

### Discussion:

#### 5.1 *Activities:*

- Collection of information from internet about first aid
- Creation of Application (app) through programming
- Installing the app in mobile
- It is supported by Android and IOS

#### 5.2 *Benefits:*

- Users can find out how to solve a problem of human body or accidents.
- Users can have about several diseases such as anaphylaxis, burns, shocking, heart attack, Bruises, black eye, chemical burns etc.
- Use of internet is nit necessary. So it is cost free.
- The idea about the Human body problem is clear because of the illustration.
- Solutions are given shortly and clearly bullet points.





## Chapter 6

### **Recommendation:**

There is a scope for future investigation. Some of the recommendations are given below:

- To will the importance of making emergency apps for the good of society.
- To improve the app in future
- To make it available for all mobiles and for everyone.

### **Limitations:**

There are a some limitations which is given below:

1. it's only made for IOS and Android not other mobile.
2. Video and sound system could be added in future
3. More information could be added such as medicine information uses and precautions.
4. Other emergency situations such as cure and tips for deadly virus, (e.g: Ebola, HIV, HPV) or pregnancy, cancer stroke etc could be made.



## Chapter 7

### **Conclusion:**

Apps are a thing of entertainment for everyone but its better if it is useful at times of emergencies and near-death situations. All app creators should think about making socially beneficial apps for mobile users other than making apps for only leisure. It is important because in the near future, everyone will need it hand to hand and at all times, especially when time is limited for help.



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