

PROJECT REPORT

ON

CT GROUP

SUBMITTED TO



IKJ PUNJAB TECHNICAL UNIVERSITY

KAPURTHALA (PUNJAB)

FOR THE DEGREE OF

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

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CT GROUP

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ACKNOWLEDGEMENT

I would like to express my deep gratitude to my Professors and my research supervisors, for their patient guidance, enthusiastic encouragement and useful critiques of this project “CT GROUP”. I would also like to thank my department head Mrs. Pooja Rana for their advice and assistance in keeping progress on schedule. Their willingness to give their time so generously has been very much appreciated.

Finally, I wish to thank my parents for their support and encouragement throughout my study.

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group of institutions

INTRODUCTION

- CT GROUP is a hybrid mobile application for information of ct collages and university.
- It is a Hybrid application which means this will run both on Android and IOS devices.
- The application is developed in React Native, a JavaScript framework presented by Facebook developer Community.
- With react native, it is built using expo, react native paper.
- Users will install the application in their respective devices and they will get information of all collages from this app.

OBJECTIVES

- CT GROUP App will show total numbers of branches in India (school, collage, university) etc
- This app will also show facilities of collages .
- Users will also get the information about events that organised by collage.
- Users will also get the information about social sides of ct group (Facebook, Instagram, YouTube) etc.
- User will get the syllabus of PTU , courses and fee structure.
- As the app is built in react native therefore users will get faster information and processing of data

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EXISTING PROBLEM IT IS SOLVING

CT GROUP is evolving so fast. Therefore, there are numerous sources available out there to get information regarding CT GROUP. But no one knows which source is reliable and easy to get information. So we need that was easy to use and get the accurate information and all information in one place. there is no app available for mobile devices , so this app will give information in easy way.

Its just not about giving the contact information it will provide environment of collage. Which facility is available in collage etc.

SCOPE

- It is a reliable piece of source
- Once the app gets success in this area, it will be easy to expand the app name via advertisements.
- Success of this may also helps in getting venture capitalism
- Angel Investors and funders may also get attracted towards CT GROUP
- Sponsorships can be offered to CT GROUP.

FEASIBILITY STUDY

The feasibility study is basically the test of the proposed system in the light of its workability, meeting user's requirements, effective use of resources and of course, the cost effectiveness. These are categorized as technical, operational, economic, schedule and social feasibility. The main goal of feasibility study is not to solve the problem but to achieve the scope. In the process of feasibility study, the cost and benefits are estimated with greater accuracy to find the Return on Investment (ROI). This also defines the resources needed to complete the detailed investigation. The result is a feasibility report submitted to the management. This may be accepted or accepted with modifications or rejected.

A feasibility study is performed by a company when they want to know whether a project is possible given certain circumstances. Feasibility studies are undertaken under many circumstances – to find out whether a company has enough money for a project, to find out whether the product being created will sell, or to see if there are enough human resources for the project. A good feasibility study will show the strengths and deficits before the project is planned or budgeted for. By doing the research beforehand, companies can save money and resources in the long run by avoiding projects that are not feasible.

OPERATIONAL FEASIBILITY

Proposed projects are beneficial only if they can be turned into information systems that will meet the organizations operating requirements. Simply stated, this test of feasibility asks if the system will work when it is developed and installed. Are there major barriers to implementation? Here are questions that will help test the operational feasibility of a project.

Is there sufficient support for the project from management from users? If the current system is well liked and used to the extent that persons will not be able to see reasons for change, there may be resistance.

Are the current business methods acceptable to the user? If they are not, Users may welcome a change that will bring about a more operational and useful systems.

Has the user been involved in the planning and development of the project? Early involvement reduces the chances of resistance to the system and in general and increases the likelihood of successful project.

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Since the proposed system was to help reduce the hardships encountered. In the existing manual system, the new system was considered to be operational feasible.

User-friendly

Customer will use the forms for their various transactions i.e. for adding new routes, viewing the routes details. Also, the Customer wants the reports to view the various transactions based on the constraints. These forms and reports are generated as user-friendly to the Client.

Reliability

The package will pick-up current transactions on line. Regarding the old transactions, User will enter them in to the system.

Security

The web server and database server should be protected from hacking, virus etc.

Portability

The application will be developed using standard open source software (Except Oracle) like Java, tomcat web server, Internet Explorer Browser etc. this software will work both on Windows and Linux o/s. Hence portability problems will not arise.

Maintainability

The system called the wheels uses the 2-tier architecture. The 1st tier is the GUI, which is said to be front-end and the 2nd tier is the database, which uses Microsoft Access, which is the back-end.

The front-end can be run on different systems (clients). The database will be running at the server. Users access these forms by using the user-ids and the passwords.

TECHNICAL FEASIBILITY

Evaluating the technical feasibility is the trickiest part of a feasibility study. This is because, at this point in time, not too many detailed designs of the system, making it difficult to access issues like performance, costs on (on account of the kind of technology to be deployed) etc. A number of issues have to be considered while doing a technical analysis.

- The technical issue usually raised during the feasibility stage of the investigation includes the following:
- Does the necessary technology exist to do what is suggested?
- Do the proposed equipment's have the technical capacity to hold the data required to use the new system?
- Will the proposed system provide adequate response to inquiries, regardless of the number or location of users?
- Can the system be upgraded if developed?

ECONOMIC FEASIBILITY

Economic feasibility attempts to weights the costs of developing and implementing a new system, against the benefits that would accrue from having the new system in place. This feasibility study gives the top management the economic justification for the new system.

A simple economic analysis which gives the actual comparison of costs and benefits are much more meaningful in this case. In addition, this provides to be a useful point of reference to compare actual costs as the project progresses. There could include increased client satisfaction, improvement in product quality better decision making timeliness of information, expediting activities, improved accuracy of operations, better documentation and record keeping, faster retrieval of information, better employee morale.

The computerized system takes care of the present existing system's data flow and procedures completely and should generate all the reports of the manual system besides a host of other management reports.

MINIMUM HARDWARE AND SOFTWARE REQUIREMENT

The Successful running of any project depends upon hardware and software used in its compilation. The Hardware and Software Requirements of this project is given below:

- **SOFTWARE**

- Operating System: Android 5.0 and Above, IOS 9 and Above
- Front End: React Native, React Native Paper, React Navigation
- Back End: API
- Supporting Server: EXPO Client
- Text-Editor: Atom Text Editor
- Internet Connectivity Required
- GIT Deprecated Version

- **HARDWARE**

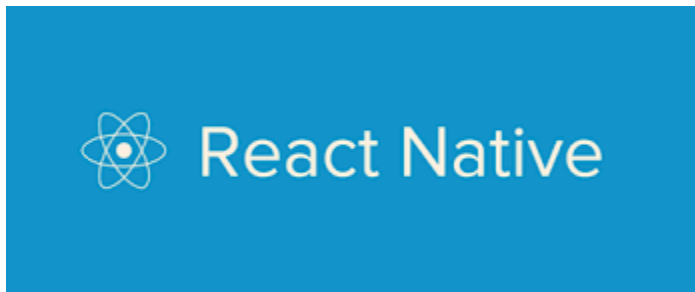
- Any Android Phone
- Apple I-phone
- Memory: Minimum 1 GB RAM and Above
- Internal Memory: 4 GB and Above

WORKING ENVIONEMENT AND TECHNOLOGIES

React Native

React Native is a JavaScript framework for writing real, natively rendering mobile applications for iOS and Android. It's based on React, Facebook's JavaScript library for building user interfaces, but instead of targeting the browser, it targets mobile platforms. In other words: web developers can now write mobile applications that look and feel truly “native,” all from the comfort of a JavaScript library that we already know and love. Plus, because most of the code you write can be shared between platforms, React Native makes it easy to simultaneously develop for both Android and iOS.

Similar to React for the Web, React Native applications are written using a mixture of JavaScript and XML-esque markup, known as JSX. Then, under the hood, the React Native “bridge” invokes the native rendering APIs in Objective-C (for iOS) or Java (for Android). Thus, your application will render using real mobile UI components, *not* webviews, and will look and feel like any other mobile application. React Native also exposes JavaScript interfaces for platform APIs, so your React Native apps can access platform features like the phone camera, or the user's location



React Native Paper

React Native Paper is a high-quality, standard-compliant Material Design library that has you covered in all major use-cases. React-native-paper meets high expectations set by iOS and Android ecosystems. Your users will appreciate this choice. Every app is different - that's why themes are first-class citizens in React-native-paper. Switch between dark and light modes, customize default colors or make your own. It's never been that easy. React-

native-paper is fully compatible with screen readers, readability tools and right-to-left languages. Make your app inclusive by default.



React Navigation

With React Navigation, all the transitions we have come to expect from a modern app are available out of the box, including **tab navigation**, **drawer navigation** (slide up), **stack navigation** (sliding across, moving through a hierarchy) and **deep linking**.

This article will cover working with navigators before setting up a basic navigation system for an app.

As is the case with quite a few React projects, the official documentation is rather verbose and not too coherent. Nevertheless, after establishing some basic knowledge reading this article I recommend reading through it to solidify your understanding and familiarizing yourself with all the configuration options.



API

An application programming interface (API) is a computing interface which defines interactions between multiple software intermediaries. It defines the kinds of calls or requests that can be made, how to make them, the data formats that should be used, the conventions to follow, etc. It can also provide extension mechanisms so that users can extend existing functionality in various ways and to varying degrees.^[1] An API can be entirely custom, specific to a component, or it can be designed based on an industry standard to ensure interoperability. Some APIs have to be documented, others are designed so that they can be "interrogated" to determine supported functionality. Since other components/systems rely only on the API, the system that provides the API can (ideally) change its internal details "behind" that API without affecting its users.

EXPO

With Expo tools, services, and React, you can build, deploy, and quickly iterate on native Android, iOS, and web apps from the same JavaScript codebase.

- Access to device capabilities like camera, location, notifications, sensors, haptics, and much more, all with universal APIs.
- Build service gives you app-store ready binaries and handles certificates, no need for you to touch Xcode or Android Studio.
- Over-the-air updates let you update your app at any time without the hassle and delays of submitting to the store.

Atom Text Editor

Atom Text is a shareware cross-platform source code editor with a Python application programming interface (API). It natively supports many programming languages and markup languages, and functions can be added by users with plugins, typically community-built and maintained under free-software licenses.

Column selection and multi-select editing

This feature allows users to select entire columns at once or place more than one cursor in text, which allows for simultaneous editing. All cursors then behave as if each of them was the only one in the text. Commands like move by character, move by line, text selection, move by words, move by sub words (Camel Case, hyphen or underscore delimited), move

to beginning/end of line, etc., affect all cursors independently, allowing one to edit slightly complex repetitive structures quickly without the need to use macros or regex.

Auto completion

Atom Text will offer to complete entries as the user is typing depending on the language being used. It also auto-completes variables created by the user.

Syntax highlight and high contrast display

The dark background on Atom Text is intended to reduce eyestrain and increase the amount of contrast with the text. Syntax highlighting also makes syntaxes of the language easier to read.

In-editor code building

This feature allows users to run code for certain languages from within the editor, which eliminates the need to switch out to the command line and back again. This function can also be set to build the code automatically every time the file is saved.

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SOFTWARE REQUIREMENT SPECIFICATION

This document shall provide the requirement specification for the “CT GROUP” as per the scope defined.

- **ASSUMPTION**

The alerts will not be provided by the site, the user has to visit it to get the information.

- **FUNCTIONAL REQUIREMENTS**

- User can see ct collage information
- Data accessing is free for every user
- The concept fetching API is used

- **NON-FUNCTIONAL REQUIREMENTS**

- **Portability:**

The system will be designed to be portable across popular Android and iOS Devices

- **Extensibility:**

The system should be extensible to add further information and users for more expansion.

- **Re-Usability:**

The system’s code could be reused to add further new features if need to be added in future.

- **Reliability and Availability:**

System shall be able to deliver the required in reliable manner.

- **Software Upgradeability:**

System is to be developed in phases, so it shall be easily upgradeable to include the new items in the database.

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- **USER INTERFACE REQUIREMENTS**

- **Main Screen:**

Main Screen shows the menu list (syllabus, prospectus, website) and collage infrastructure.

- **event Screen:**

This Page shows the events that happened in collage.

- **Contact screen:**

This page shows the other branches of ct group and its contact information.

- **About screen:**

This screen shows the about the institutions and its social links.

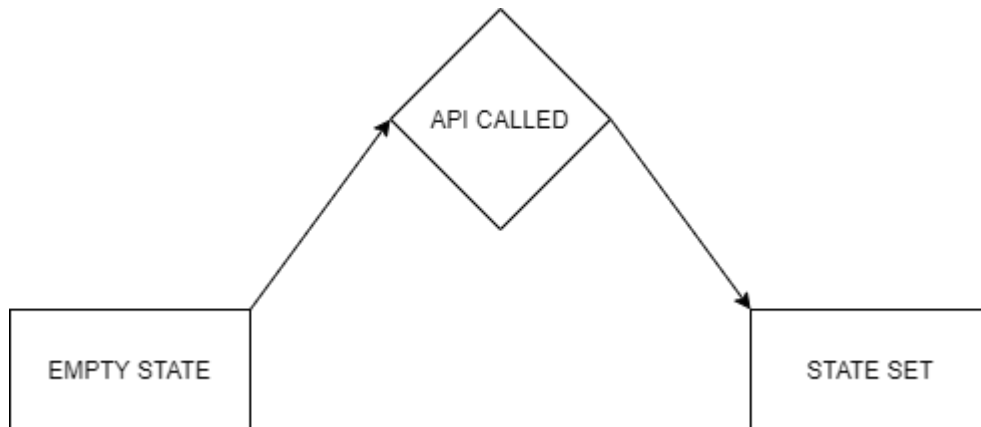
- **Bottom tab screen:**

This tab use to navigate between screens and it has logo with text.

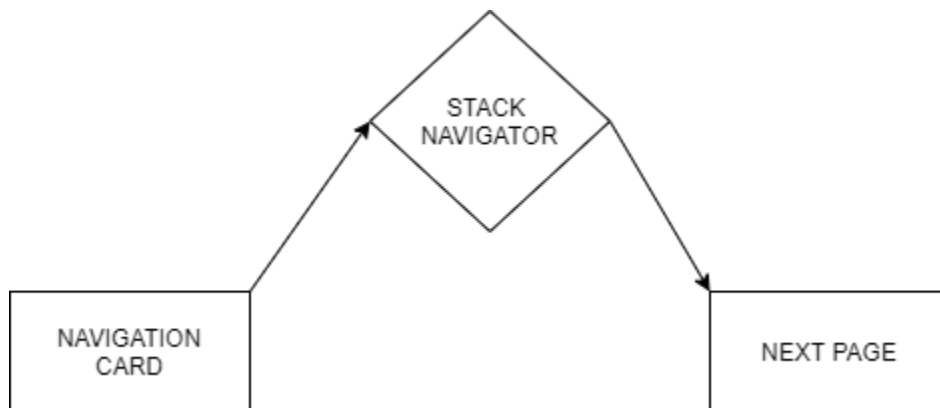
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DATA FLOW DIAGRAM

API CALL

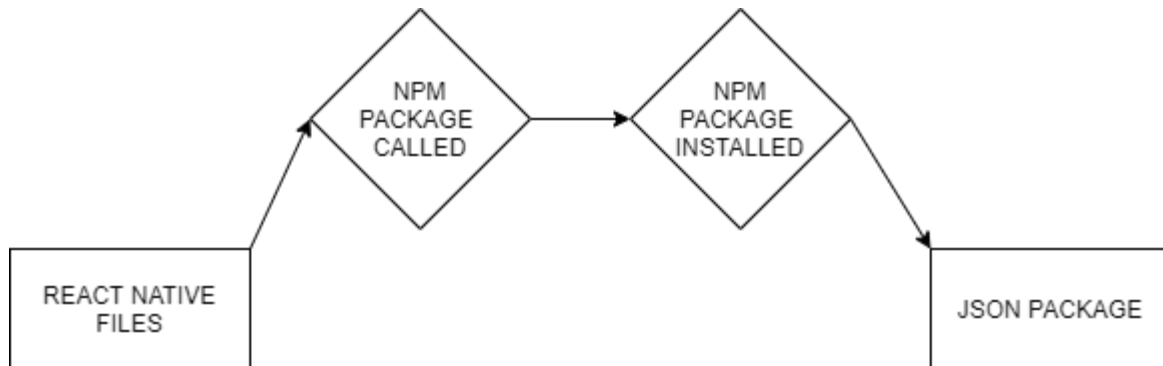


REACT NAVIGATION

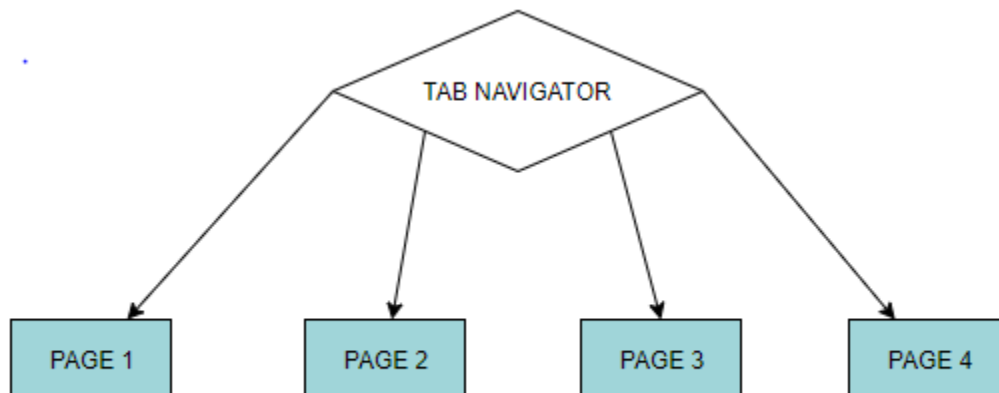


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NPM PACKAGE INSTALLED



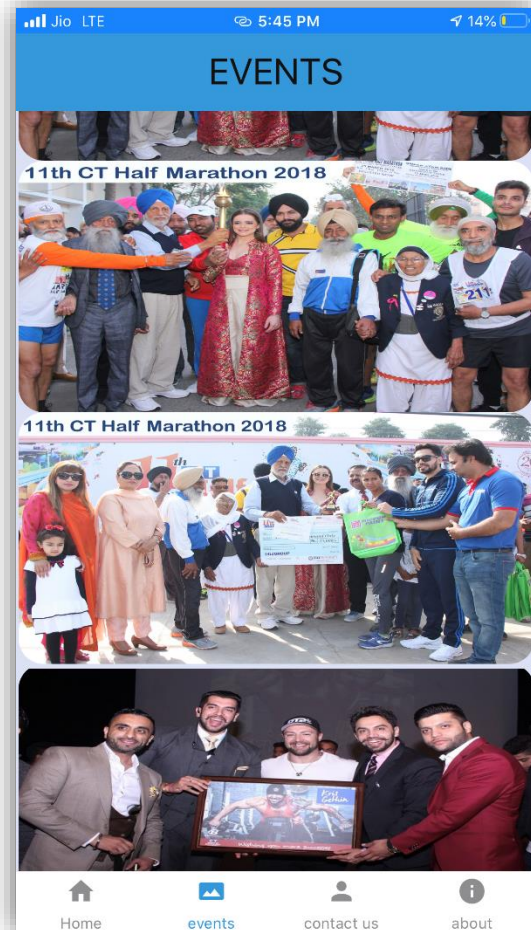
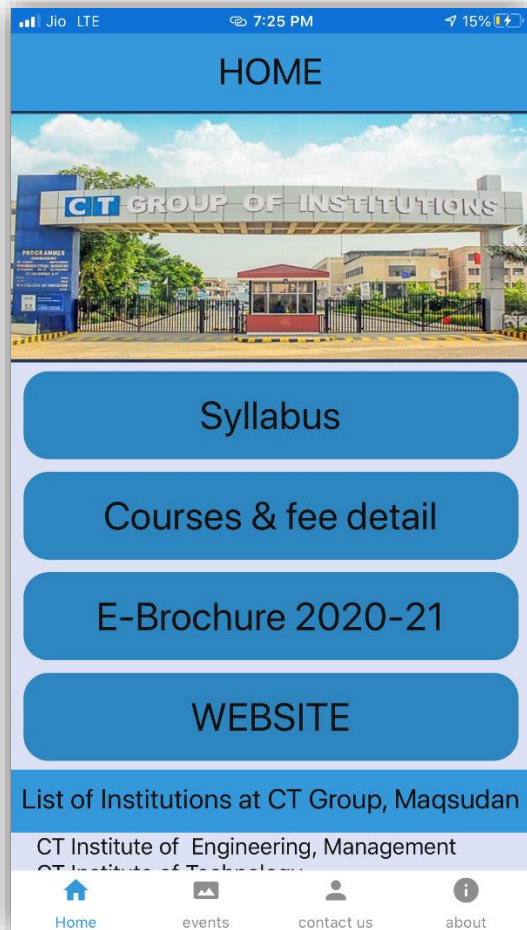
BOTTOM TAB NAVIGATION



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SCREENSHOTS

HOME SCREEN

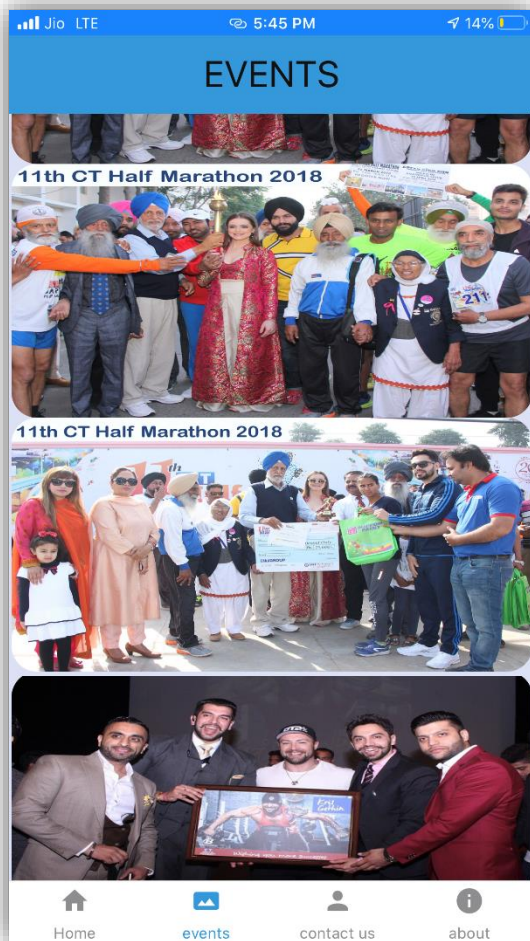


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EVENT SCREEN



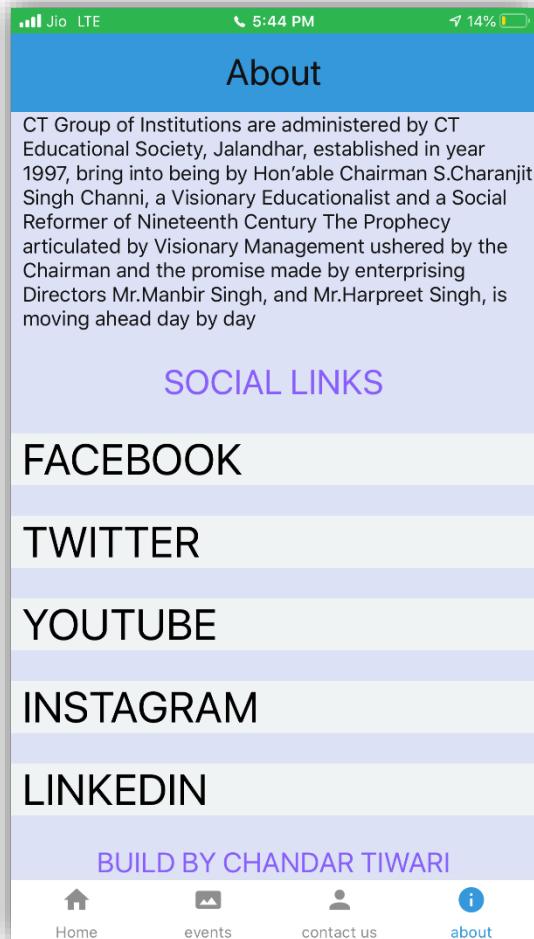
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CONTACT US SCREEN



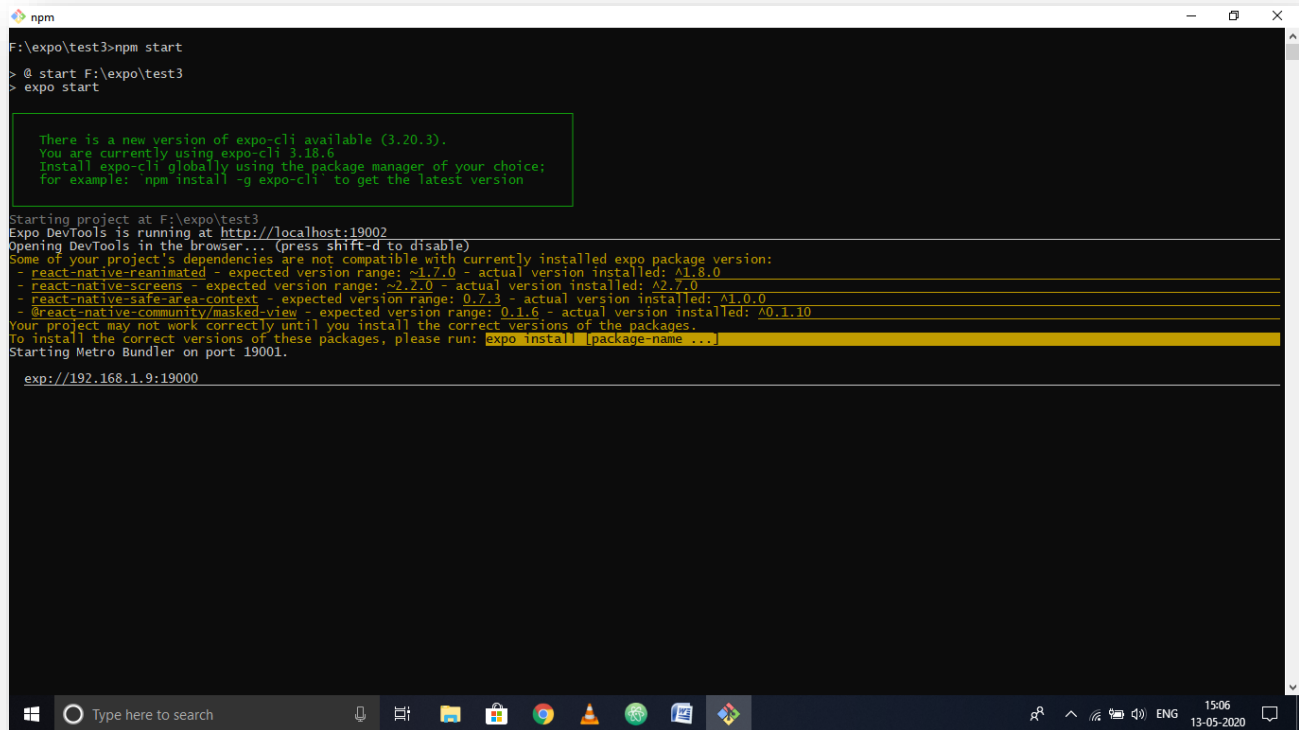
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ABOUT SCREEN



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GIT SCREEN



```
npm
F:\expo\test3>npm start
> @ start F:\expo\test3
> expo start

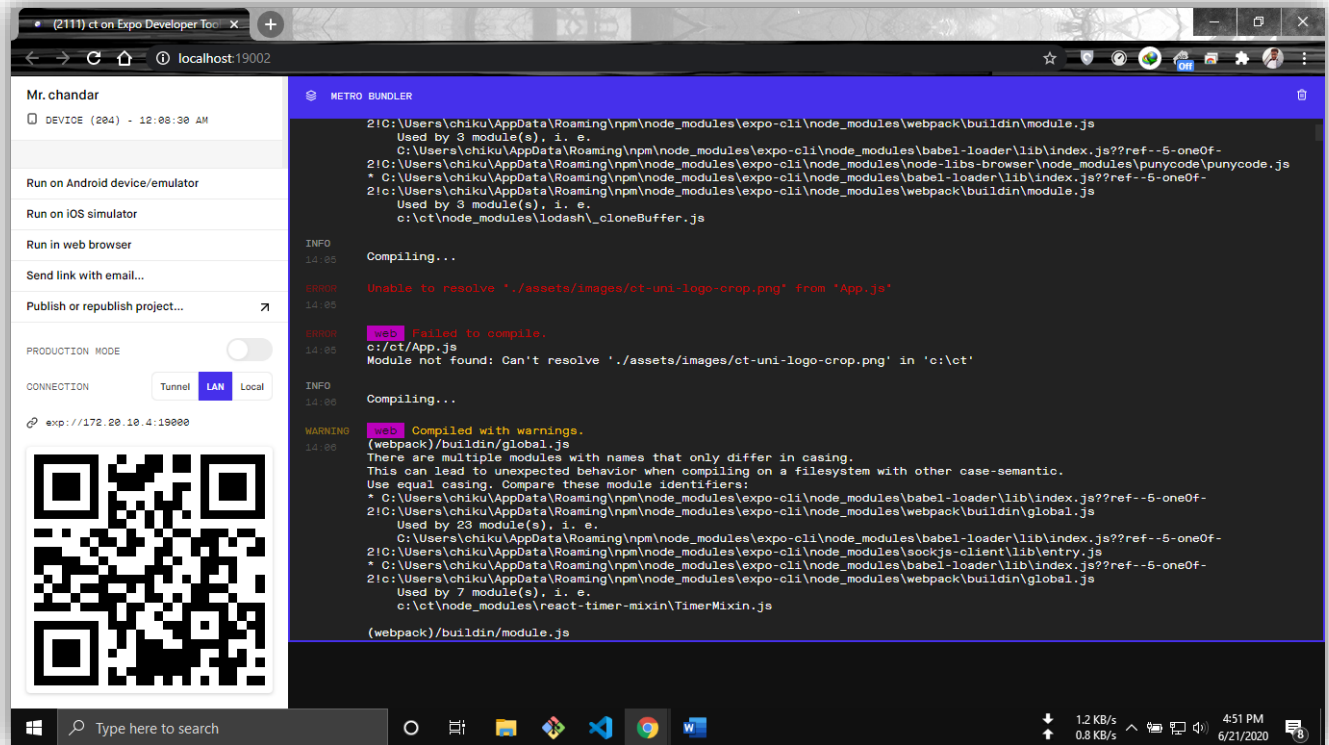
There is a new version of expo-cli available (3.20.3).
You are currently using expo-cli 3.18.6
Install expo-cli globally using the package manager of your choice;
for example: npm install -g expo-cli to get the latest version

Starting project at F:\expo\test3
Expo DevTools is running at http://localhost:19002
Opening DevTools in the browser... (press shift-d to disable)
Some of your project's dependencies are not compatible with currently installed expo package version:
- react-native-reanimated - expected version range: ^1.7.0 - actual version installed: 1.8.0
- react-native-screens - expected version range: ^2.2.0 - actual version installed: 2.2.0
- react-native-safe-area-context - expected version range: 0.7.3 - actual version installed: 1.0.0
- @react-native-community/masked-view - expected version range: 0.1.6 - actual version installed: 0.1.10
Your project may not work correctly until you install the correct versions of the packages.
To install the correct versions of these packages, please run: expo install [package-name ...]
Starting Metro Bundler on port 19001.

exp://192.168.1.9:19000
```

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EXPO CLIET SCREEN



CODING

Different modules specified in the design document are coded in the Coding phase according to the module specification. The main goal of the coding phase is to code from the design document prepared after the design phase through a high-level language and then to unit test this code.

Good software development organizations want their programmers to maintain to some well-defined and standard style of coding called coding standards. They usually make their own coding standards and guidelines depending on what suits their organization best and based on the types of software they develop. It is very important for the programmers to maintain the coding standards otherwise the code will be rejected during code review.

Some of the coding standards are given below:

1. **Limited use of global:**

These rules tell about which types of data that can be declared global and the data that can't be.

2. **Standard headers for different modules:**

For better understanding and maintenance of the code, the header of different modules should follow some standard format and information. The header format must contain below things that is being used in various companies:

- Name of the module
- Date of module creation
- Author of the module
- Modification history
- Synopsis of the module about what the module does
- Different functions supported in the module along with their input output parameters
- Global variables accessed or modified by the module

3. **Naming conventions for local variables, global variables, constants and functions:**

Some of the naming conventions are given below:

- Meaningful and understandable variables name help anyone to understand the reason of using it.

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- Local variables should be named using camel case lettering starting with small letter (e.g. **local Data**) whereas Global variables names should start with a capital letter (e.g. **Global Data**). Constant names should be formed using capital letters only (e.g. **CONSDATA**).
- It is better to avoid the use of digits in variable names.
- The names of the function should be written in camel case starting with small letters.
- The name of the function must describe the reason of using the function clearly and briefly.

4. **Indentation:**

Proper indentation is very important to increase the readability of the code. For making the code readable, programmers should use White spaces properly. Some of the spacing conventions are given below:

- There must be a space after giving a comma between two function arguments.
- Each nested block should be properly indented and spaced.
- Proper Indentation should be there at the beginning and at the end of each block in the program.
- All braces should start from a new line and the code following the end of braces also start from a new line.

5. **Error return values and exception handling conventions:**

All functions that encountering an error condition should either return a 0 or 1 for simplifying the debugging.

1. **Avoid using a coding style that is too difficult to understand:**

Code should be easily understandable. The complex code makes maintenance and debugging difficult and expensive.

2. **Avoid using an identifier for multiple purposes:**

Each variable should be given a descriptive and meaningful name indicating the reason behind using it. This is not possible if an identifier is used for multiple purposes and thus it can lead to confusion to the reader. Moreover, it leads to more difficulty during future enhancements.

3. Code should be well documented:

The code should be properly commented for understanding easily. Comments regarding the statements increase the understandability of the code.

4. Length of functions should not be very large:

Lengthy functions are very difficult to understand. That's why functions should be small enough to carry out small work and lengthy functions should be broken into small ones for completing small tasks.

5. Try not to use GOTO statement:

GOTO statement makes the program unstructured, thus it reduces the understandability of the program and also debugging becomes difficult.

Advantages of Coding Guidelines:

- Coding guidelines increase the efficiency of the software and reduces the development time.
- Coding guidelines help in detecting errors in the early phases, so it helps to reduce the extra cost incurred by the software project.
- If coding guidelines are maintained properly, then the software code increases readability and understandability thus it reduces the complexity of the code.
- It reduces the hidden cost for developing the software.

➤ CODING OF COMPONENT CALLING

```
import React from 'react';
import { createStackNavigator } from '@react-navigation/stack';
import { Text, View, StyleSheet, StatusBar, ScrollView, Image, Linking, TouchableOpacity, } from
m 'react-native';
import { createStackNavigator } from '@react-navigation/stack';
import { NavigationContainer } from '@react-navigation/native';
import { createBottomTabNavigator } from '@react-navigation/bottom-tabs';
import { MaterialCommunityIcons } from '@expo/vector-icons';
```

➤ CODING OF REACT TAB NAVIGATION

```
const Tab = createBottomTabNavigator();
```

```
function MyTabs() {
  return (
    <Tab.Navigator
      initialRouteName="Feed"
      tabBarOptions={{
        activeTintColor: '#3498DB',
      }}
    >
      <Tab.Screen
        name="Feed"
        component={homepage}
        options={{
          tabBarLabel: 'Home',
          tabBarIcon: ({ color, size }) => (
            <MaterialCommunityIcons name="home" color={color} size={size} />
          ),
        }}
      />
      <Tab.Screen
        name="events"
        component={Eventpage}
        options={{
          tabBarLabel: 'events',
          tabBarIcon: ({ color, size }) => (
            <MaterialCommunityIcons name="image-area" color={color} size={size} />
          ),
        }}
      />
    </Tab.Navigator>
  );
}
```

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```
<Tab.Screen
  name="Profile"
  component={ Contactus }
  options={ {
    tabBarLabel: 'contact us',
    tabBarIcon: ({ color, size }) => (
      <MaterialCommunityIcons name="account" color={color} size={size} />
    ),
  }}
/>
<Tab.Screen
  name="about us"
  component={ Aboutpage }
  options={ {
    tabBarLabel: 'about',
    tabBarIcon: ({ color, size }) => (
      <MaterialCommunityIcons name="information" color={color} size={size} />
    ),
  }}
/>
</Tab.Navigator>
```

➤ CODING OF STYLING

```
const styles = StyleSheet.create({
  container: {
    flex: 1
  },
  //home
  menu: {
    alignItems: "stretch",
    justifyContent: "space-between",
    paddingVertical: 2,
    padding: 5
  },
  button1: {
    height: 70,
    alignSelf: "stretch",
    justifyContent: "center",
    backgroundColor: "#2E86C1",
    paddingVertical: 20,
    borderRadius: 20,
    paddingVertical: 10
  },
  hlist_items: {
    padding: 5
  },
  text_menu: {
    color: "#121212",
    fontSize: 28,
    alignSelf: "center",
    alignItems: "stretch",
    textAlign: "auto",
    borderRadius: 40
  },
  top: {
    height: 63,
    shadowColor: "rgba(155,155,155,1)",
    shadowOffset: {
      width: 5,
      height: 5
    },
    elevation: 0,
```

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```
    shadowOpacity: 0.31,
    marginTop: 19
  },
  rect1: {
    backgroundColor: "#3498DB",
    justifyContent: "center",
    flex: 1
  },
  home_t: {
    color: "#121212",
    fontSize: 26,
    textAlign: "center",
    alignSelf: "center"
  },
  scrolltop: {
    height: 56,
    backgroundColor: "#E6E6E6",
  },
  scrolltop_contentContainerStyle_ht: {
    width: 1200,
    height: 56,
    flexDirection: "row",
    flexWrap: "nowrap",
    alignItems: "center"
  },
  image_banner: {
    width: 300,
    height: 56
  },
  scrollArea: {
    backgroundColor: "#dce0f5",
  },
  scrollArea_contentContainerStyle1: {
    height: 2140,
  },
  image5: {
    width: 490,
    height: 200,
    alignSelf: "center"
  },
}
```

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```
text_hlist: {
  color: "#121212",
  alignSelf: "stretch",
  height: 50,
  fontSize: 20,
  textAlign: "center",
  paddingTop: 10,
  backgroundColor: "#3498DB",
  elevation: 200
},
loremIpsum1: {
  color: "#121212",
  alignSelf: "stretch",
  height: 264,
  fontSize: 16,
  paddingLeft: 20,
},
home_h1: {
  color: "#121212",
  fontSize: 28,
  textAlign: "center",
  alignSelf: "stretch",
  backgroundColor: "#3498DB",
},
image9: {
  width: 414,
  height: 200
},
image10: {
  width: 414,
  height: 145
},
image11: {
  width: 414,
  height: 258
},
image13: {
  width: 414,
  height: 250,
}
```


➤ CODING OF HOMEPAGE

```
function homepage() {
    return (
        <View style={styles.container}>
            <StatusBar animated />
            <View style={styles.top}>
                <View style={styles.rect1}>
                    <Text style={styles.home_t}>HOME</Text>
                </View>
            </View>
            <View style={styles.scrollArea}>
                <ScrollView
                    horizontal={false}
                    contentContainerStyle={styles.scrollArea_contentContainerStyle1}>
                    <Image
                        source={require("./assets/images/1551939582phpdxdmxY1.jpeg")}
                        resizeMode="stretch" style={styles.image5}></Image>
                    <View style={styles.menu}>
                        <View style={styles.hlist_items}>
                            <TouchableOpacity onPress={() => {
                                Linking.openURL('https://ptu.ac.in/Syllabus/CompApp.aspx'); }}
                                style={styles.button1}>
                                <Text style={styles.text_menu}>Syllabus</Text>
                            </TouchableOpacity></View>
                        <View style={styles.hlist_items}>
                            <TouchableOpacity onPress={() => {
                                Linking.openURL('https://www.ctgroup.in/programmes_offered.php'); }}
                                style={styles.button1}>
                                <Text style={styles.text_menu}>Courses & fee detail</Text>
                            </TouchableOpacity></View>
                        <View style={styles.hlist_items}>
                            <TouchableOpacity onPress={() => {Linking.openURL('https://www.ctgroup.in/
                                images/admissions/CTGIBrochure2021.pdf'); }}
                                style={styles.button1}>
                                <Text style={styles.text_menu}>E-Brochure 2020-21</Text>
                            </TouchableOpacity></View>
                        <View style={styles.hlist_items}>
                            <TouchableOpacity onPress={() => {
                                Linking.openURL('https://www.ctgroup.in/'); }}

```

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```
        style={styles.button1}>
        <Text style={styles.text_menu}>WEBSITE</Text>
    </TouchableOpacity></View>
</View>
<Text style={styles.text_hlist}>List of Institutions at CT Group, Maqsudan</Text>
<Text style={styles.loremIpsum1}>
    CT Institute of Engineering, Management
    {"\n"}CT Institute of Technology
    {"\n"}CT Institute of Pharmaceutical Sciences
    {"\n"}CT Institute of Management Studies
    {"\n"}CT Institute of Management & Technology
    {"\n"}CT Institute of Hotel Management
    {"\n"}CT Institute of Hospitality Management
    {"\n"}CT Institute of Architecture & Planning
    {"\n"}CT Institute of Higher Studies
    {"\n"}MK College of Education
    {"\n"}CT Polytechnic College
</Text>
<Text style={styles.home_h1}>LIBRARIES</Text>
<Image
    source={require("./assets/images/libraries_header_pic.jpg")}
    resizeMode="contain"
    style={styles.image9}
></Image>
<Text style={styles.home_h1}>HOSTELS</Text>
<Image
    source={require("./assets/images/hostels_header_pic.jpg")}
    resizeMode="contain"
    style={styles.image10}
></Image>
<Text style={styles.home_h1}>LABORATORIES</Text>
<Image
    source={require("./assets/images/c849295c-a09c-4d29-88ba-7428774d1fea.jpg")}
    resizeMode="cover"
    style={styles.image11}
></Image>
<Text style={styles.home_h1}>SEMINAR HALLS</Text>
<Image
    source={require("./assets/images/Seminar_hall.jpg")}
    resizeMode="contain"
```

```
        style={styles.image13}
      ></Image>
      <Text style={styles.home_h1}>Our Recruiters</Text>
      <View style={styles.scrolltop}>
        <ScrollView
          horizontal={true}
          contentContainerStyle={styles.scrolltop_contentContainerStyle_ht}>
          <Image
            source={require("./assets/images/banner1.jpg")}
            resizeMode="contain"
            style={styles.image_banner}
          ></Image>
          <Image
            source={require("./assets/images/banner2.jpg")}
            resizeMode="contain"
            style={styles.image_banner}
          ></Image>
          <Image
            source={require("./assets/images/banner3.jpg")}
            resizeMode="contain"
            style={styles.image_banner}
          ></Image>
          <Image
            source={require("./assets/images/banner41.jpg")}
            resizeMode="contain"
            style={styles.image_banner}
          ></Image>
        </ScrollView>
      </View>
      <Image
        source={require("./assets/images/makephotogallery.net_1592516108.jpg")}
        resizeMode="contain"
        style={styles.image12}
      ></Image>
    </ScrollView>
  </View>
</View>
```

➤ CODING OF PACKAGE.JSON

```
{
  "main": "node_modules/expo/AppEntry.js",
  "scripts": {
    "start": "expo start",
    "android": "expo start --android",
    "ios": "expo start --ios",
    "web": "expo start --web",
    "eject": "expo eject",
    "test": "jest --watchAll"
  },
  "jest": {
    "preset": "jest-expo"
  },
  "dependencies": {
    "@expo/vector-icons": "~10.0.6",
    "@react-native-community/masked-view": "0.1.6",
    "@react-navigation/bottom-tabs": "^5.3.1",
    "@react-navigation/native": "^5.2.1",
    "@react-navigation/stack": "^5.2.16",
    "expo": "~37.0.9",
    "expo-asset": "~8.1.0",
    "expo-constants": "~9.0.0",
    "expo-font": "~8.1.0",
    "expo-linking": "^1.0.1",
    "expo-splash-screen": "^0.2.3",
    "expo-web-browser": "~8.2.0",
    "react": "~16.9.0",
    "react-dom": "~16.9.0",
    "react-native": "https://github.com/expo/react-native/archive/sdk-37.0.1.tar.gz",
    "react-native-gesture-handler": "~1.6.0",
    "react-native-safe-area-context": "0.7.3",
    "react-native-screens": "~2.2.0",
    "react-native-web": "~0.11.7"
  },
  "devDependencies": {
    "@babel/core": "^7.8.6",
    "babel-preset-expo": "~8.1.0",
    "jest-expo": "~37.0.0"
  },
  "private": true
}
```

TESTING

1. Unit Testing

In computer programming, unit testing is a software testing method by which individual units of source code, sets of one or more computer program modules together with associated control data, usage procedures, and operating procedures, are tested to determine whether they are fit for use. Intuitively, one can view a unit as the smallest testable part of an application. In procedural programming, a unit could be an entire module, but it is more commonly an individual function or procedure. In object-oriented programming, a unit is often an entire interface, such as a class, but could be an individual method. Unit tests are short code fragments created by programmers or occasionally by white box testers during the development process. It forms the basis for component testing.

Ideally, each test case is independent from the others. Substitutes such as method stubs, mock objects, fakes, and test harnesses can be used to assist testing a module in isolation. Unit tests are typically written and run by software developers to ensure that code meets its design and behaves as intended.

2. Integration Testing

Integration testing is the phase in software testing in which individual software modules are combined and tested as a group. It occurs after unit testing and before validation testing. Integration testing takes as its input modules that have been unit tested, groups them in larger aggregates, applies tests defined in an integration test plan to those aggregates, and delivers as its output the integrated system ready for system testing.

3. System Testing

System testing of software or hardware is testing conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements. System testing falls within the scope of black-box testing, and as such, should require no knowledge of the inner design of the code or logic.

As a rule, system testing takes, as its input, all of the "integrated" software components that have passed integration testing and also the software system itself integrated with

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any applicable hardware system. The purpose of integration testing is to detect any inconsistencies between the software units that are integrated together or between any of the assemblages and the hardware. System testing is a more limited type of testing; it seeks to detect defects both within the "inter-assemblages" and also within the system as a whole.

IMPLEMENTATION

This phase involves training users to handle the system. Vendors do some training, but oversight of training is the responsibility of the systems analyst. In addition, the analyst needs to plan for a smooth conversion from the old system to the new one. This process includes converting files from old formats to new ones, or building a database, installing equipment, and bringing the new system into production.

Evaluation is included as part of this final phase of the SDLC mostly for the sake of discussion. Actually, evaluation takes place during every phase. A key criterion that must be satisfied is whether the intended users are indeed using the system.

It should be noted that systems work is often cyclical. When an analyst finishes one phase of systems development and proceeds to the next, the discovery of a problem may force the analyst to return to the previous phase and modify the work done there.

Development Life Cycle is the implementation or development of the software. In this phase, developers start coding according to the requirements and the design discussed in previous phases.

Database admins create the necessary data in the database, front-end developers create the necessary interfaces and GUI to interact with the back-end all based on guidelines and procedures defined by the company.

Developers also write unit tests for each component to test the new code that they have written, review each other's code, create builds and deploy software to an environment. This cycle of development is repeated until the requirements are met.

MAINTANANCE

Once the software has been fully tested and no high priority issues remain in the software, it is time to deploy to production where customers can use the system.

Once a version of the software is released to production, there is usually a maintenance team that look after any post-production issues.

If an issue is encountered in the production the development team is informed and depending on how severe the issue is, it might either require a hot-fix which is created and shipped in a short period of time or if not very severe, it can wait until the next version of the software.

- Priority is maintaining the integrity of the Application code – the code that allow your App to display and function.
- Regular updates to website content.
- Bug fixes
- Making Technical enhancements
- New Add-ons to the System
- Welcome of change in App at any stage
- Reviewing the code at regular intervals
- Functionality Enhancements
- Upgrades and Security Patches
- Application Optimization and Configuration
- In terms of Enhancement of Website, the customer may have more input fields in order to be more descriptive towards the services in future.
- Multiple User Interface
- Handling Large Databases
- Community Support and Customer Care

CONCLUSION

The System has been developed successfully incorporate all requirements. Appropriate care has taken during database design maintain database integrity and to avoid redundancy of data.

This project was intended to help tackle the reliable information issue by means of providing an API System. The findings from the pilot study shows that there is a demand for such system to be implemented in such projects.

This Application was developed in such a way that any further modifications needed can be easily done.