Epilux

The more you see the more you learn.

Unofficial Codechef Android app for notifying upcoming challenges, browsing all problems and profile of coders .

App Introduction

Epilux is an Unofficial Android app for Codechef. This app provides various features to coders like notification of new upcoming challenges, previous contest problems and ratings.

With this app one can easily explorer and search various contest details and subscribe to get notification of the events.

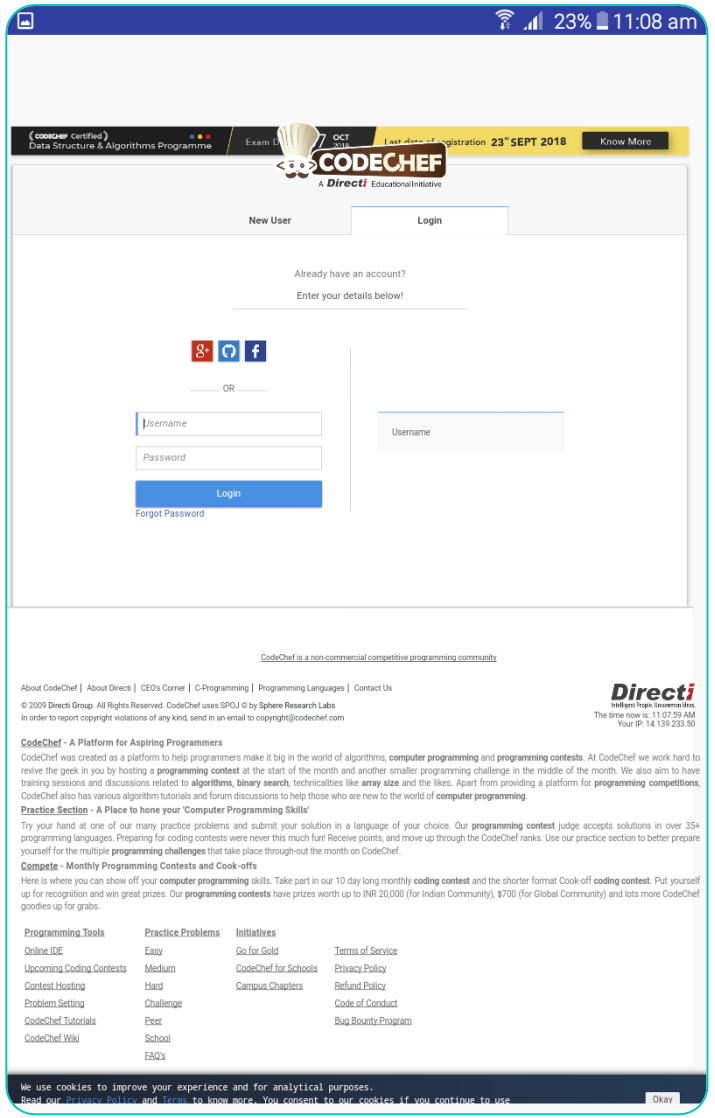
Our Tagline “The more you see the more you learn” emphasis on the learning and viewing problems anywhere and at any time.

With the era of mobile apps , we think that a portable and fast version of codechef android app will surely help coder and programmer community to enhance their skills and schedule themselves for the challenges.

Instructions/functionality

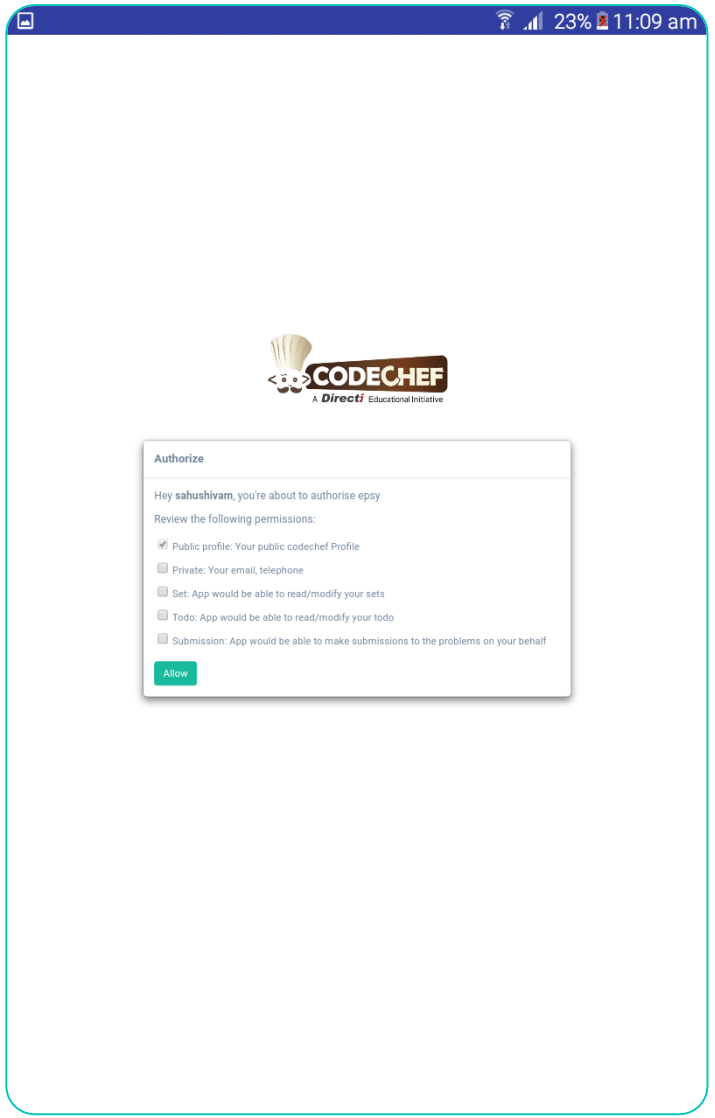
- Step 1: Create a Codechef account using loginID and Password(Google , facebook and git authentication are currently not acceptable in the app).

- Step 2: Login to Our app using your credentials.



Instructions/functionality

- Step 3 : Allow your profile values like name , email , college and submission. Currently our app wants only your username only.



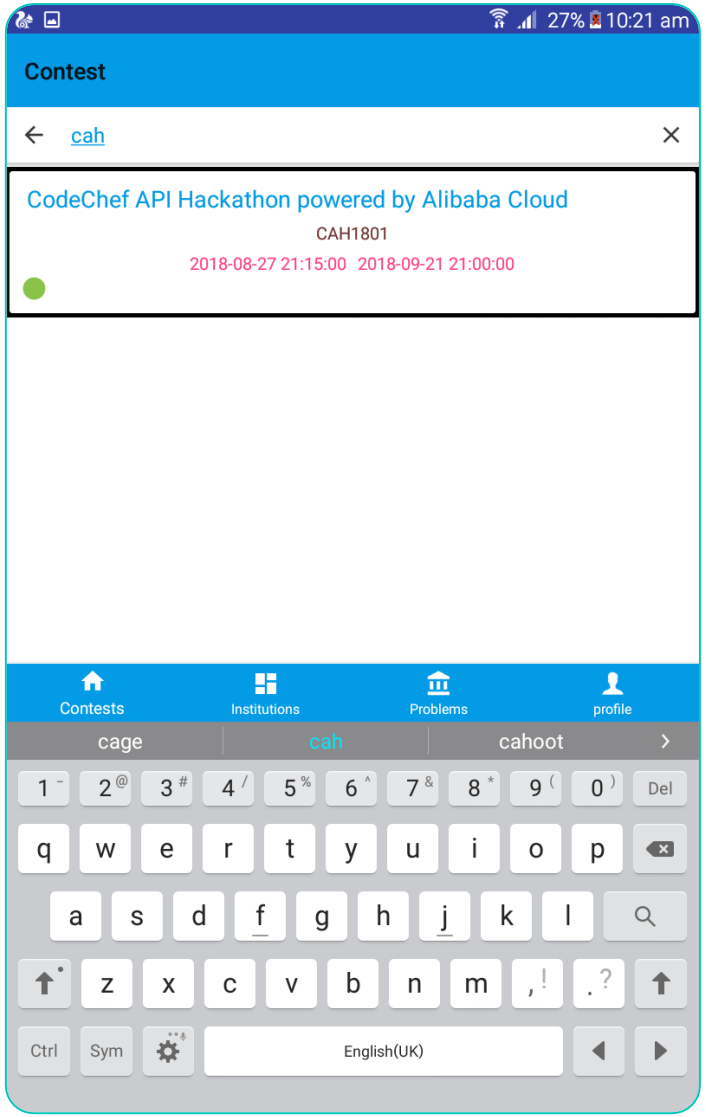
Instructions/functionality

- Step 4 : Now your are at the Contest Home Page.

- Here you can view all contest list.
- A small colour indicator is present on every contest part which indicate contest status.
- Red : Upcoming Contests and Challenges.
- Green : Current Contest ongoing.
- Black : Previous contests.

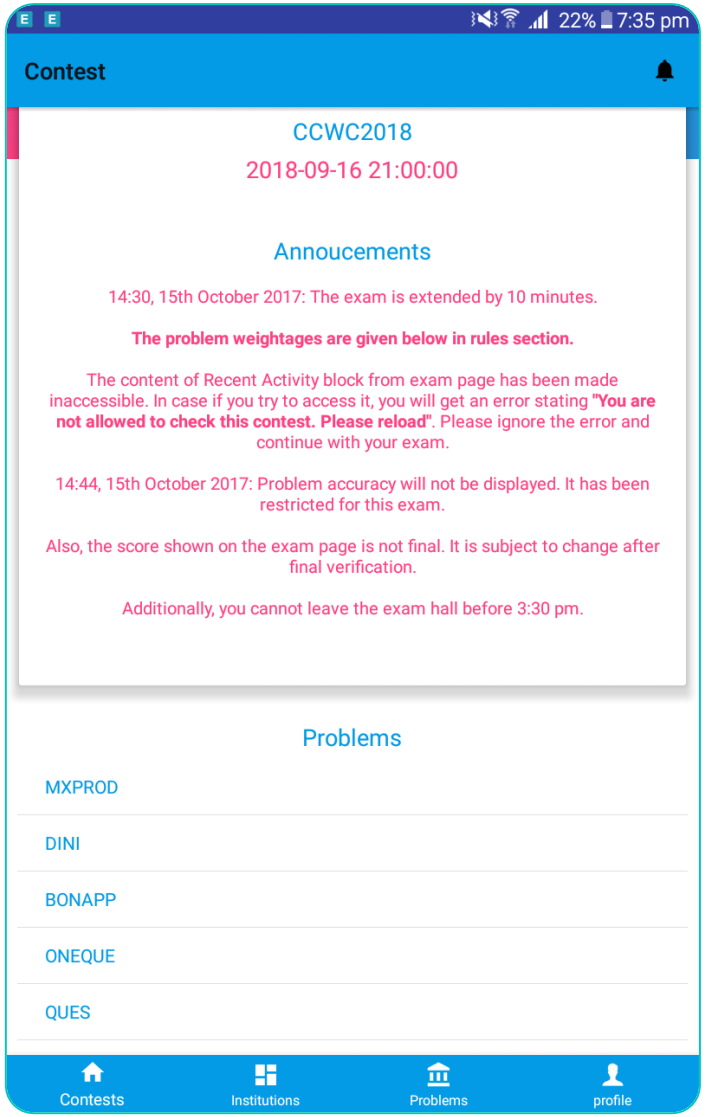
Instructions/functionality

- Step 5 : There is a search bar on top of contest page where you can search and get information of particular contest.



Instructions/functionality

- Step 6 : Onclicking the contest you can get the detail of the it and if you want the notification you can click on the bell icon on top.

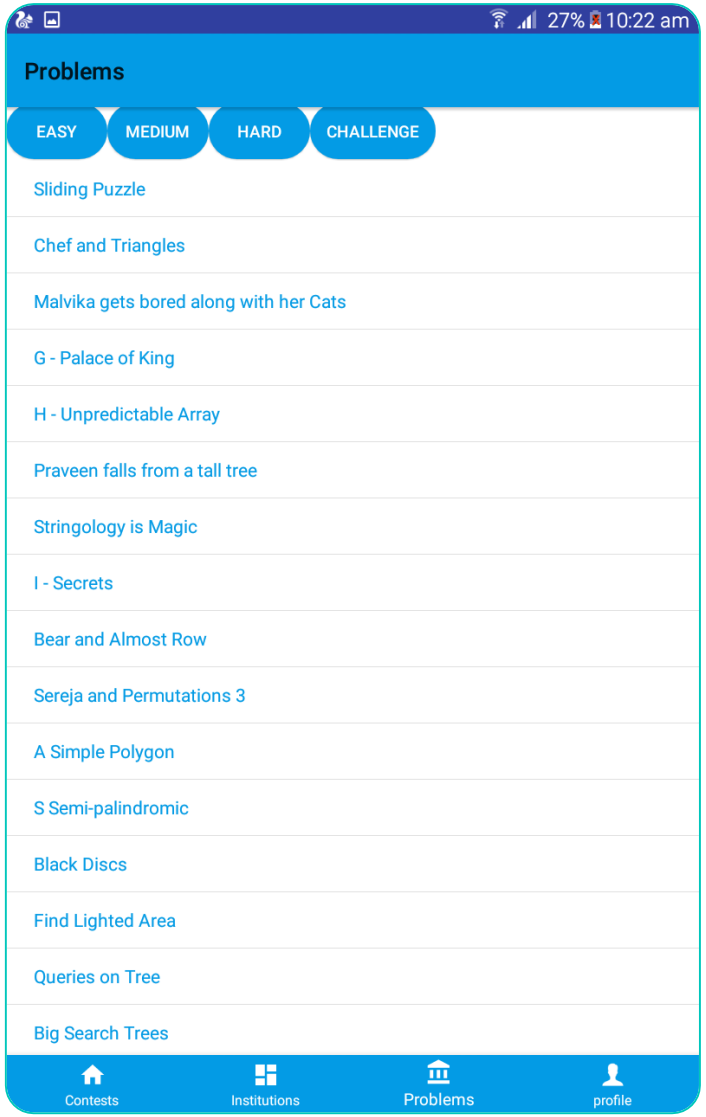


Instructions/functionality

Step 7 : On institution tab you can search ranking of coder by country and institution.

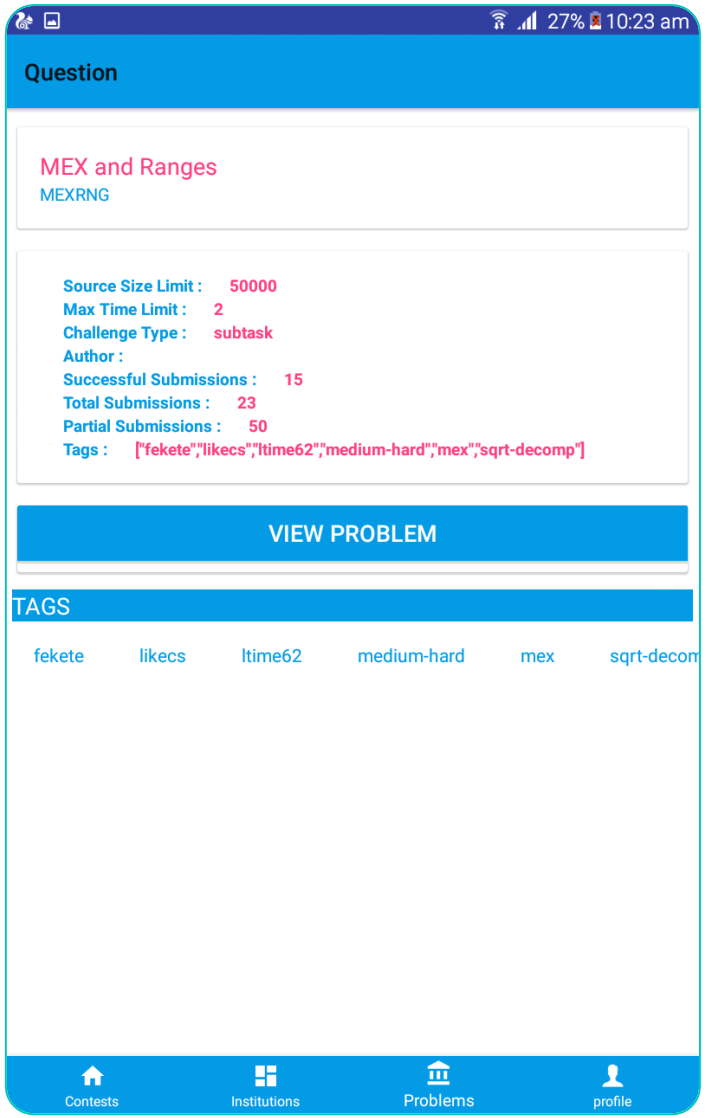
Instructions/functionality

- Step 8 :On problems tab you can view the problem by easy , medium and hard tags.



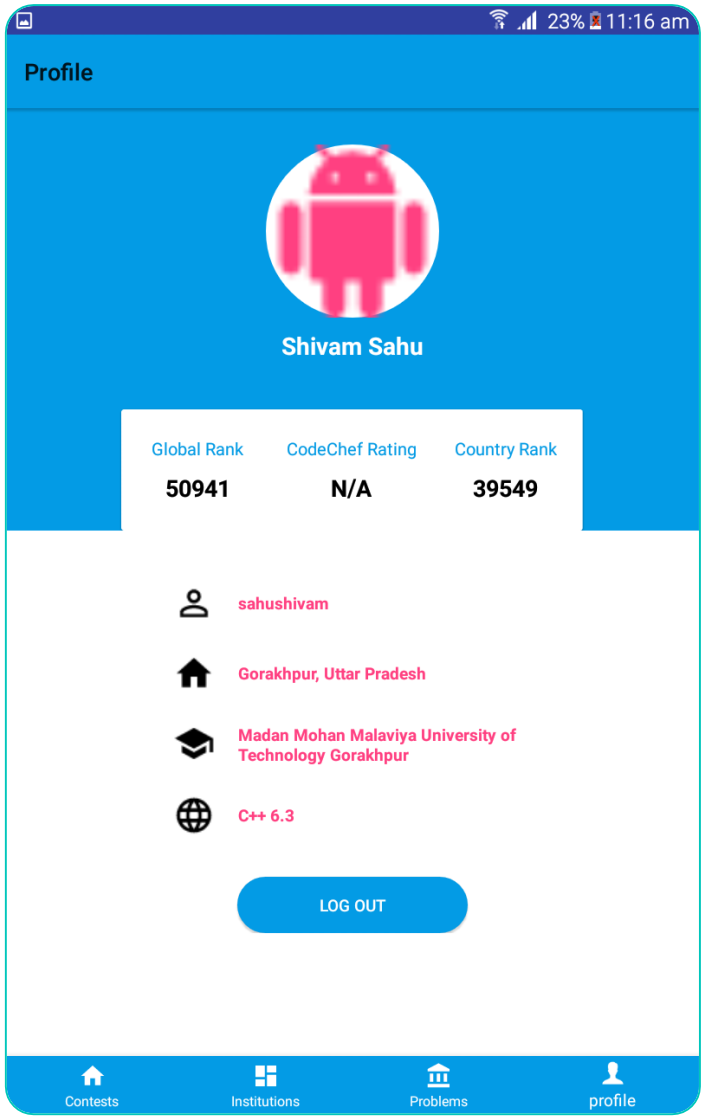
Instructions/functionality

- Step 9 : Question tab will describe the questions and here you can search other questions by tags.



Instructions/functionality

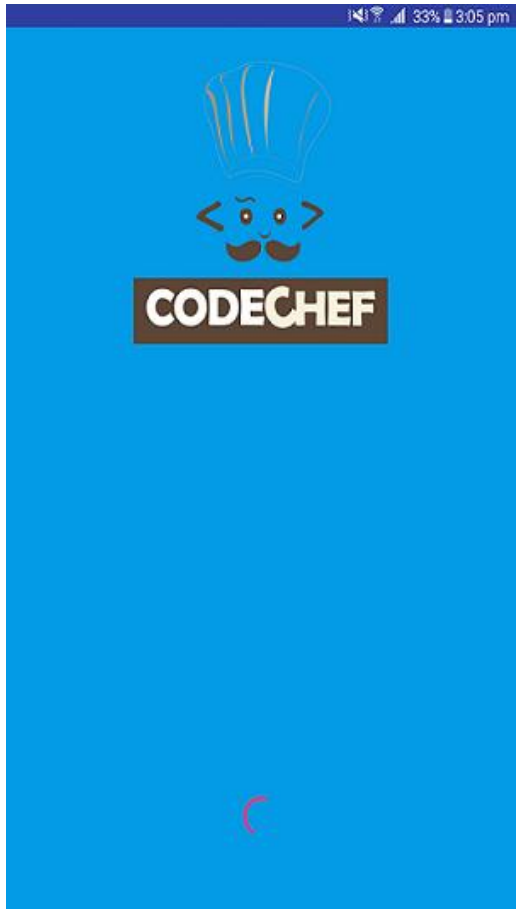
- Step 10 : On profile tab you can view and log out from your account.

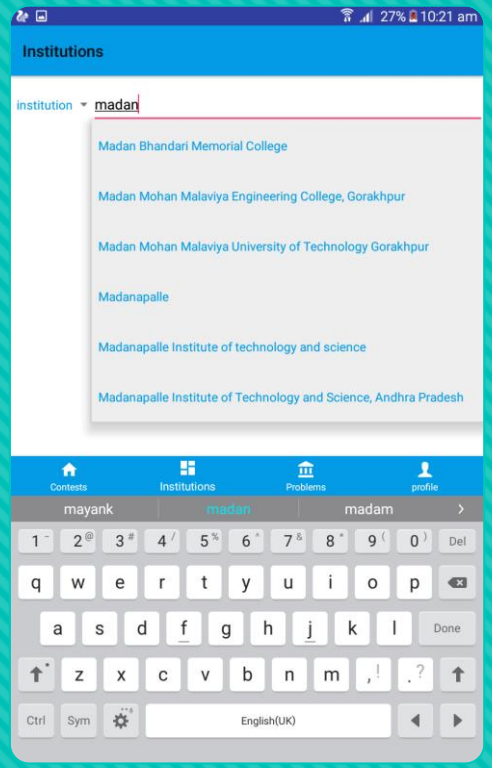


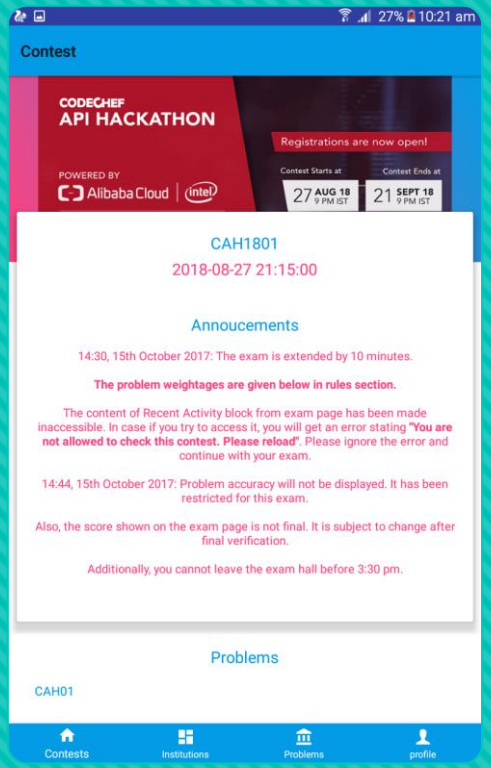
App Features

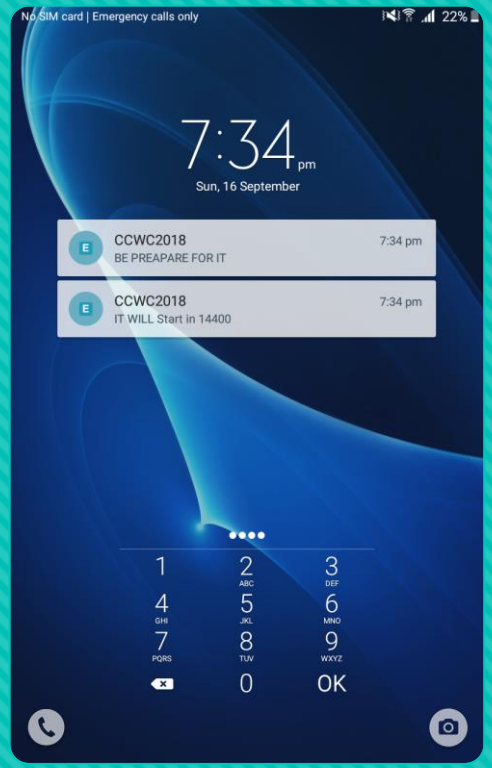
- Very Easy to use
- Secure, as your credential will be locally store in your phone and everything will call from your phone only.
- Portable and light weight (less than 10 mb) and no extra permission required except internet use.
- Notification of upcoming events.
- Browse contest.
- Ranking and rating by country and institution.
- Search problems by tags.
- Track your and other coder profiles.

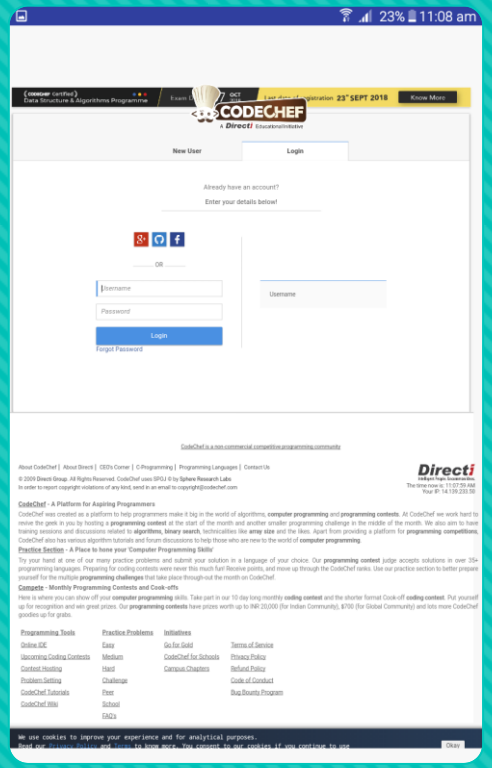
Screen Shots



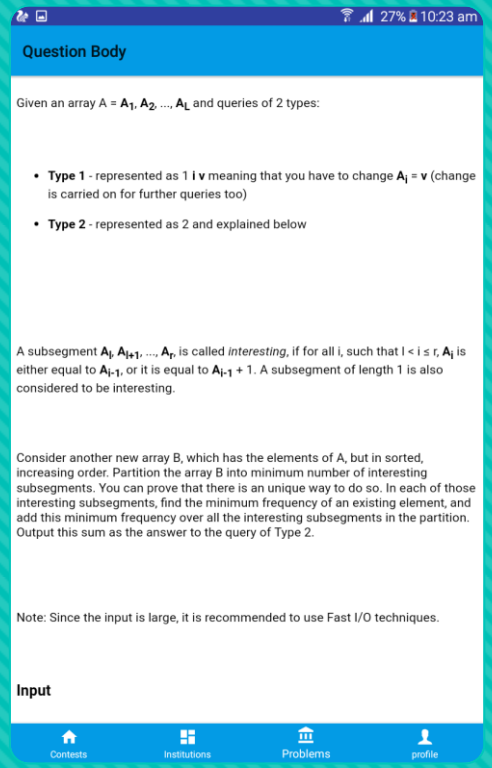


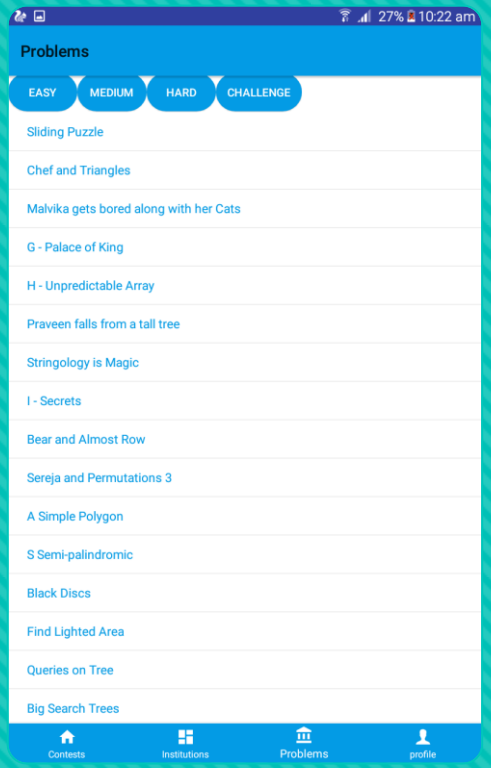


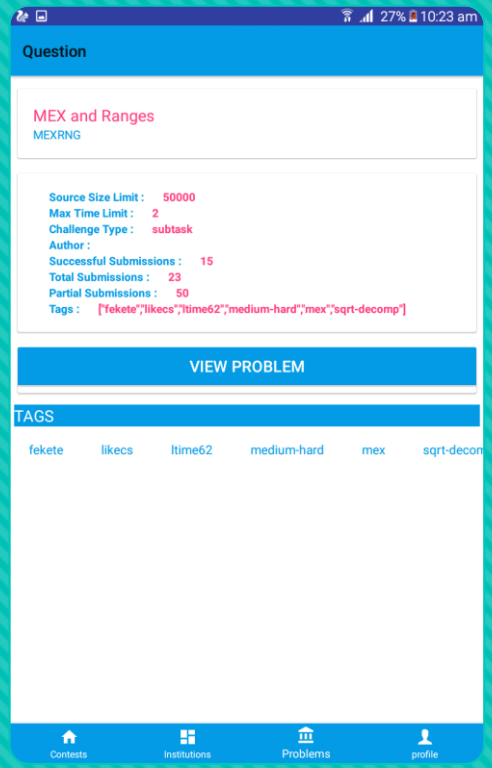


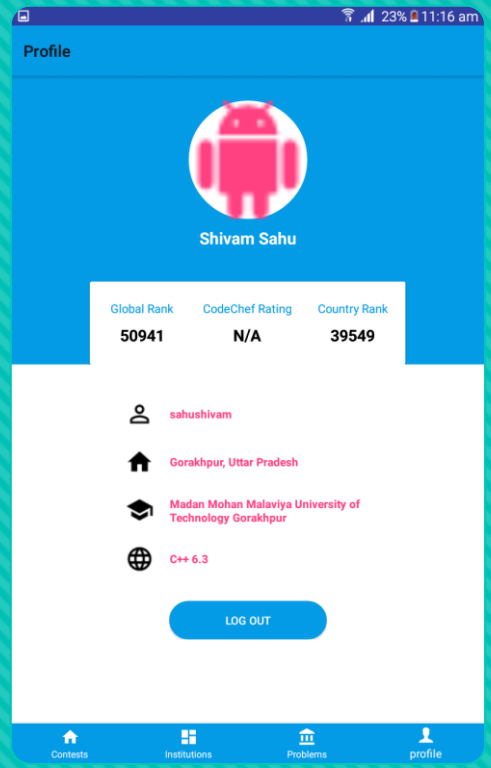


Screen Shots





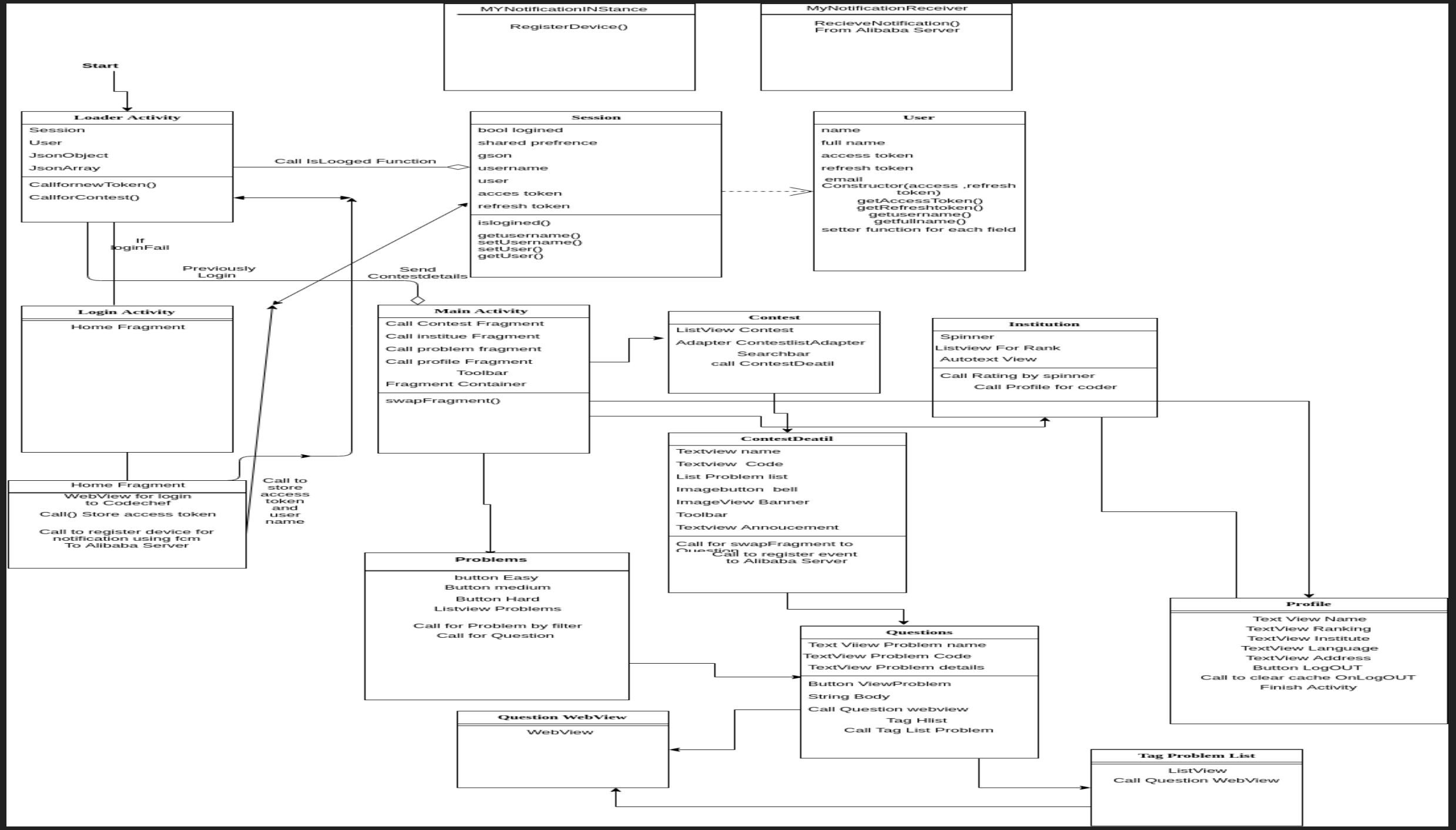




Screen shots

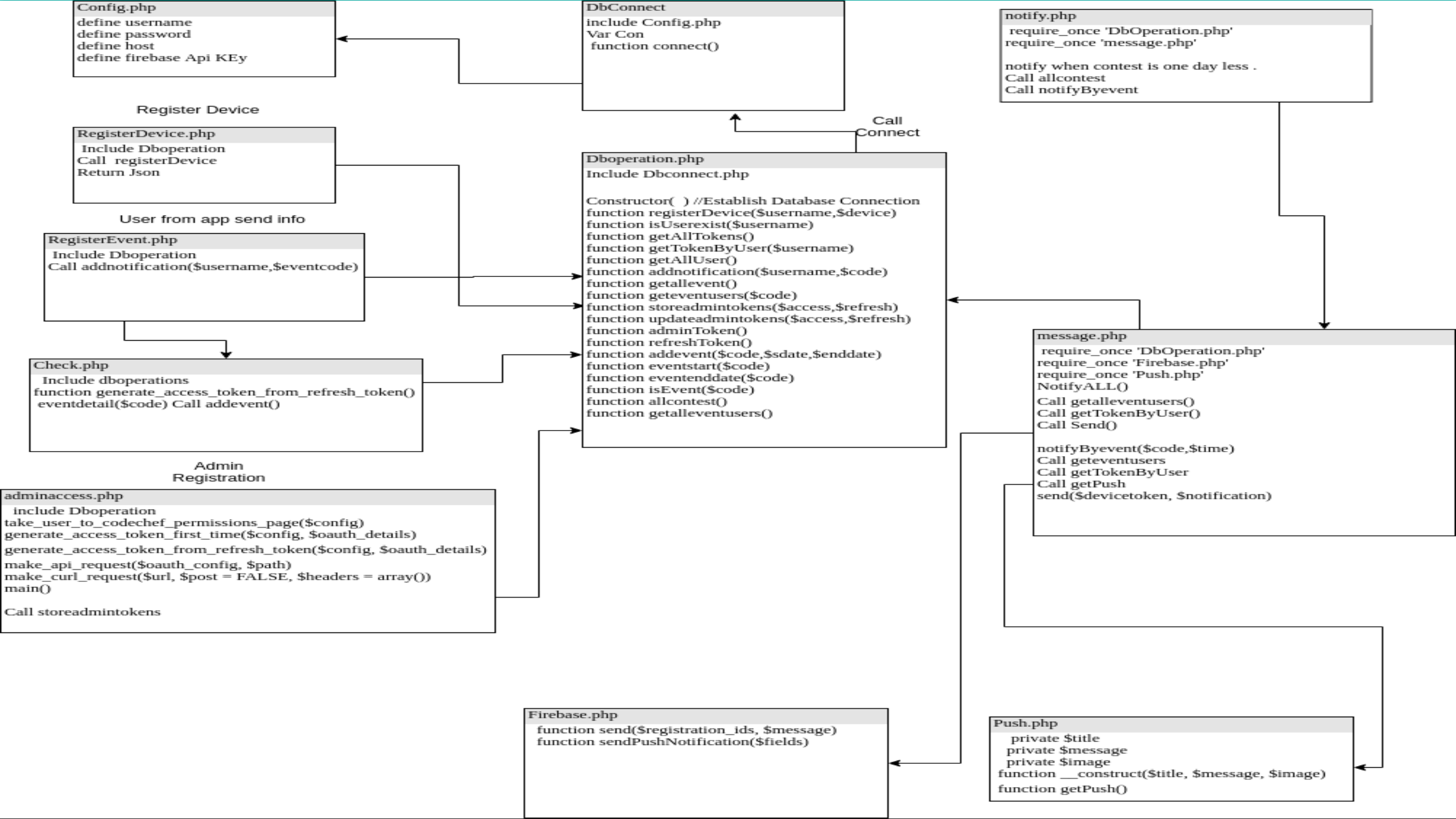
App Architecture

Android App


MYNotificationINStance
RegisterDevice()
MyNotificationReceiver
RecieveNotification()
From Alibaba Server
Start
Loader Activity
Session
User
JsonObject
JsonArray
CallfornewToken()
CallforContest()
Call IsLooged Function
Session
bool logined
shared prefrence
gson
username
user
acces token
refresh token
islogined()
getusername()
setUsername()
setUser()
getUser()
User
name
full name
access token
refresh token
email
Constructor(access ,refresh token)
getAccessToken()
getRefreshtoken()
getusername()
getfullname()
setter function for each field
If loginFail
Previously Login
Send Contestdetails
Login Activity
Home Fragment
Main Activity
Call Contest Fragment
Call institue Fragment
Call problem fragment
Call profile Fragment
Toolbar
Fragment Container
swapFragment()
Contest
ListView Contest
Adapter ContestlistAdapter
Searchbar
call ContestDeatil
Institution
Spinner
Listview For Rank
Autotext View
Call Rating by spinner
Call Profile for coder
Home Fragment
WebView for login to Codechef
Call() Store access token
Call to register device for notification using fcm To Alibaba Server
Call to store access token and user name
ContestDeatil
Textview name
Textview Code
List Problem list
Imagebutton bell
ImageView Banner
Toolbar
Textview Annoucement
Call for swapFragment to Question
Call to register event to Alibaba Server
Problems
button Easy
Button medium
Button Hard
Listview Problems
Call for Problem by filter
Call for Question
Profile
Text View Name
TextView Ranking
TextView Institute
TextView Language
TextView Address
Button LogOUT
Call to clear cache OnLogOUT
Finish Activity
Questions
Text Viiew Problem name
TextView Problem Code
TextView Problem details
Button ViewProblem
String Body
Call Question webview
Tag Hlist
Call Tag List Problem
Question WebView
WebView
Tag Problem List
ListView
Call Question WebView

App Architecture

- On Alibaba Elastic Server 149.129.135.60/server


Config.php
define username
define password
define host
define firebase Api KEy
DbConnect
include Config.php
Var Con
function connect()
notify.php
require_once 'DbOperation.php'
require_once 'message.php'
notify when contest is one day less .
Call allcontest
Call notifyByevent
Register Device
RegisterDevice.php
Include Dboperation
Call registerDevice
Return Json
Call
Connect
Dboperation.php
Include Dbconnect.php
Constructor( ) //Establish Database Connection
function registerDevice($username,$device)
function isUserexist($username)
function getAllTokens()
function getTokenByUser($username)
function getAllUser()
function addnotification($username,$code)
function getallevent()
function geteventusers($code)
function storeadmintokens($access,$refresh)
function updateadmintokens($access,$refresh)
function adminToken()
function refreshToken()
function addevent($code,$sdate,$enddate)
function eventstart($code)
function eventenddate($code)
function isEvent($code)
function allcontest()
function getalleventusers()
User from app send info
RegisterEvent.php
Include Dboperation
Call addnotification($username,$eventcode)
Check.php
Include dboperations
function generate_access_token_from_refresh_token()
eventdetail($code) Call addevent()
message.php
require_once 'DbOperation.php'
require_once 'Firebase.php'
require_once 'Push.php'
NotifyALL()
Call getalleventusers()
Call getTokenByUser()
Call Send()
notifyByevent($code,$time)
Call geteventusers
Call getTokenByUser
Call getPush
send($devicetoken, $notification)
Admin
Registration
adminaccess.php
include Dboperation
take_user_to_codechef_permissions_page($config)
generate_access_token_first_time($config, $oauth_details)
generate_access_token_from_refresh_token($config, $oauth_details)
make_api_request($oauth_config, $path)
make_curl_request($url, $post = FALSE, $headers = array())
main()
Call storeadmintokens
Firebase.php
function send($registration_ids, $message)
function sendPushNotification($fields)
Push.php
private $title
private $message
private $image
function __construct($title, $message, $image)
function getPush()

Alibaba Services

- Elastic Computer
- MongoDb

Alibaba Elastic Computing Server

- Install apache server, php , mysql and sftp
- Use to host php script for registering device and send notification
- Sftp server use transfering data
- Mysql is used for storing local admin tokens and refresh tokens.
- Cron job for scheduling the notification on every 1 hour.

MongoDb

- Use to store data of client username
- Use to store information of events.