

**A PROJECT REPORT**

on

**“KAANS -AN INTERACTIVE  
STUDENT TEACHER  
APPLICATION”**

Submitted to  
**KIIT Deemed to be University**

In Partial Fulfilment of the Requirement for the Award of

**BACHELOR’S DEGREE IN COMPUTER  
SCIENCE & ENGINEERING**

BY

- 1. KARAN KHANNA 1605450**
- 2. ABHIJIT VASU 1605334**
- 3. NILANJAN GIRI 1605371**
- 4. SAYAN SAHA 1605525**
- 5. ASHUTOSH JOSHI 1605450**

UNDER THE GUIDANCE  
OF  
**PROF. SUBHASISH DASH**



**SCHOOL OF COMPUTER ENGINEERING  
KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY  
BHUBANESWAR, ODISHA - 751024**

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BHUBANESWAE, ODISHA -751024

MARCH  
2020

KIIT Deemed to be University  
School of Computer Engineering  
Bhubaneswar, ODISHA 751024

## CERTIFICATE

This is certify that the project entitled  
“KAANS“ submitted by

**1.KARAN KHANNA 1605450**

**2.ABHIJIT VASU 1605334**

**3.NILANJAN GIRI 1605371**

**4.SAYAN SAHA 1605525**

**5.ASHUTOSH JOSHI 1605350**

is a record of bonafide work carried out by them, in the partial fulfilment of the requirement for the award of Degree of Bachelor of Engineering (Computer Science & Engineering ) at KIIT Deemed to be university, Bhubaneswar. This work is done during year 2019-2020, under our guidance.

Date: 30 /03/2020

(Prof. SHUBHASISH DASH)  
Project Guide

# Acknowledgements

We are profoundly grateful to Prof. Subhasish Dash for his expert guidance and continuous encouragement throughout to see that this project rights its target since its commencement to its completion.

**1.KARAN KHANNA 1605450**

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# ABSTRACT

Presentation Title: App for Assignment Submission in a Teacher Student interactive format

Project Platform: Android App Development

Department: School Of Computer Engineering ( KIIT )

Abstract:

An android application is developed in which an interface is created individually between a teacher and a student. The application is divided into 2 parts namely TEACHER and STUDENT. Here one can select which part he/she belongs to. After this a login/sign up page comes up with a login id and password. After the login is successful the actual work starts. Now at the time of assignment submission the student goes and submits the assignment in the teacher's cabin. After submitting the assignment the student opens the application on his phone and updates his assignment submission status. Now this status also gets updated in the teachers profile. So while checking the teacher opens his account and sees the students who have updated their assignment status to "submitted". The teacher then takes up the entire pile of assignments which were submitted to him physically by the students and one by one checks the name of the student and updates it in his account. Now if any student has cunningly updated his status and not submitted the assignment, he will be caught. After he(the teacher)is done with this a marks sheet will open on his screen and the teacher will assign marks to the students. Thus this application will reduce manual work load and smooth end up the entire process.

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# Chapter 1:Introduction

## 1.1 SELECTION

**1.1.1 TEACHER** : Select you are a teacher.

**1.1.2 STUDENT** : Select you are a student.

## 1.2 LOGIN

**1.2.1 TEACHER'S LOGIN PAGE** : Here the teacher logs in to the application.

**1.2.2 STUDENT LOGIN PAGE** : Here the student logs in to the application.

## 1.3 ASSIGNMENT SUBMISSION

**1.3.1 ASSIGNMENT SUBMISSION** : Here the student submits the  
assignment.

## 1.4 ASSIGNMENT CHECKING

**1.4.1 ASSIGNMENT CHECKING** :Here the teacher checks the  
assignment submitted by students.

## 1.5 MARKS AWARDED

**1.5.1 MARKS AWARDED**:Here the teacher awards marks and the  
student can check their marks.



## Chapter 2

# Software Requirements Specification

### 1. Functional Requirement:

#### a) Logging In

- i. The System shall verify valid ID and password.
- ii. The System will not allow user to login with invalid ID And password.
- iii. System shall allow member to login with valid ID and password

#### b) In Teaching Faculty Portal:-

- i. The faculty will be adding a new assignment on his portal.
- ii. Then verification of submitted assignment is done in faculty portal.
- iii. Then marks will be allotted to student on the basis of submitted assignment.

#### c) In Student Portal :-

- i. Whenever Faculty adds a new assignment on his portal the link for requesting submission for new assignment .
- ii. The marks allotted by teacher for assignment are reflected onto student portal.

### 2. Non Functional Requirements:

#### a) Performance Requirements:

- i. Database should be updated within seconds.
- ii. High speed internet connectivity.

#### b) Hardware and Software Requirements:

##### i. For standard client:

- I. A smart phone with nominal specifications.
- II. Operating System should be Android OS.

##### ii. For Application Server:

- I. Operating System is Windows
- II. Software for development is Android Studio.

##### iii. For Database Server:

- I. Operating System is Windows.
- II. Fire base Server is used for development of Database.

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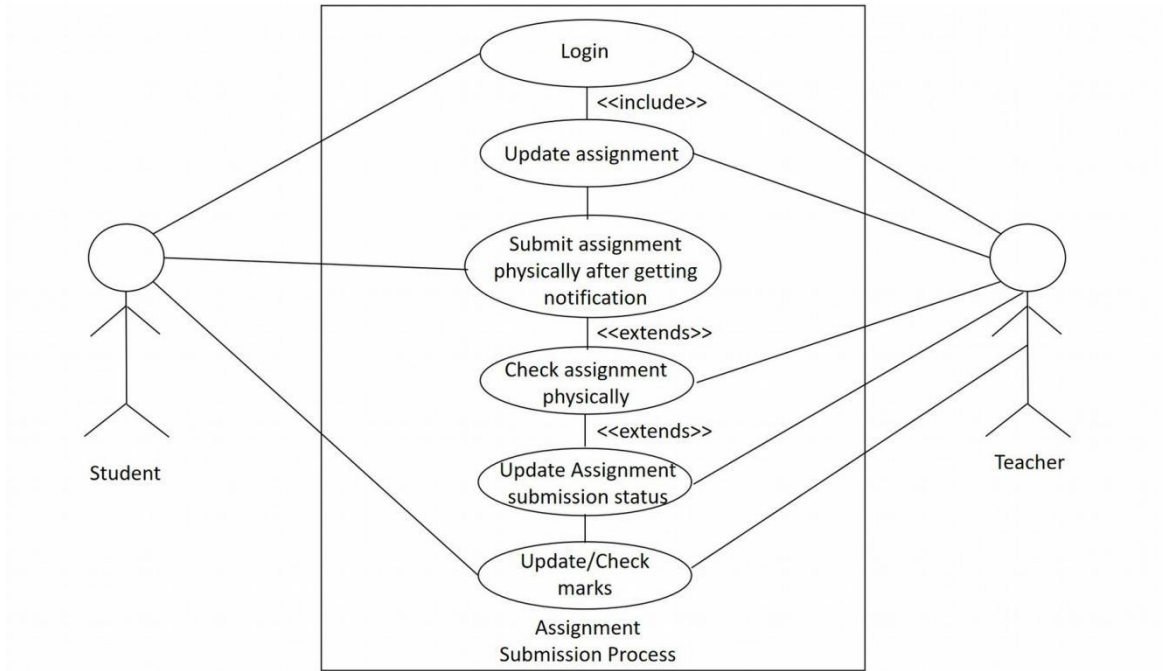
## Chapter 3

# Requirement Analysis

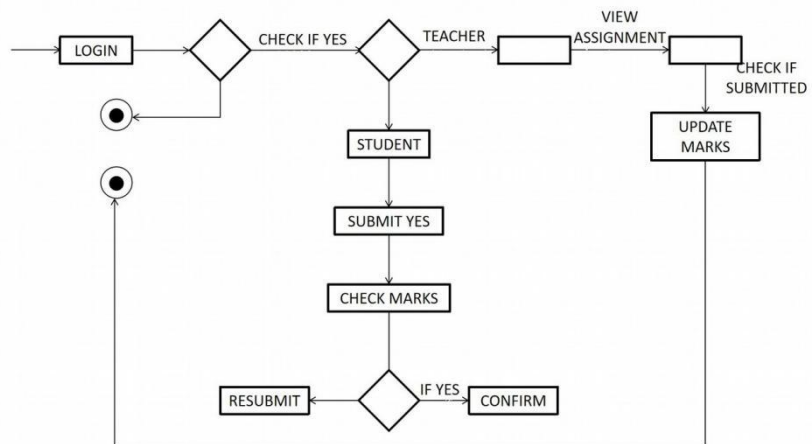
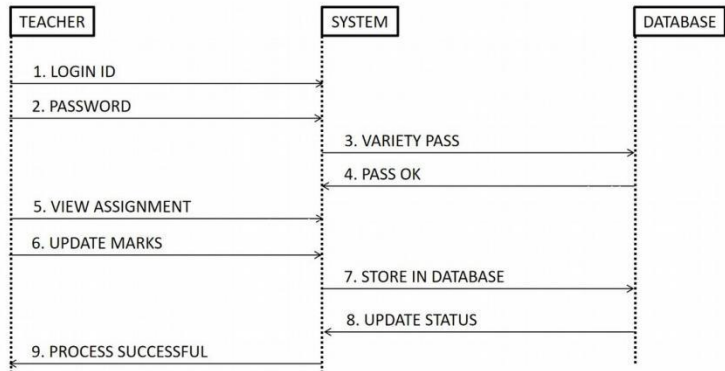
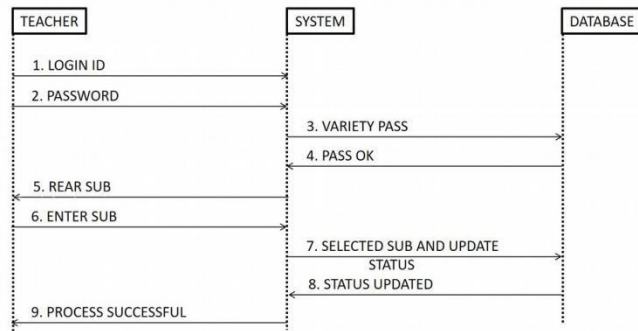
Requirements Analysis is the process of defining the expectations of the users for an application that is to be built or modified. Requirements analysis involves all the tasks that are conducted to identify the needs of the customer. So before we started building the project we took into consideration all the expectations that are to be fulfilled. We had a picture in our heads about how the application should look. That was exactly what we tried to bring to the table when we present it before the jury. So before starting our work on the application we took down notes on the projects look and feel and from there on there was no compromise. The UML Diagrams, flowcharts , Data flow diagram were very useful and made us stick to the plan which we had thought about at the very beginning. We had to ask our fellow students and teachers for some inputs that would make the project even more useful for the users. These inputs made the application to the point without any fusses or nuisance. So finally for the application to work properly it was mandatory for us to make the Requirement Analysis as it was only the ray of sunshine whenever we lost track of the things that we were doing.

# Chapter 4

## System Design



Use Case Diagram



State Chart Diagram

---

# Chapter 5

## System Testing

### 6.1 Test Cases and Test Results

Test ID	Test Case Title	Test Condition	System Behaviour	Expected Result
T01	Wrong password	Student/Teacher portal	Login failed	Login failed
T02	Case sensitive	Student/Teacher portal	Message displayed	Message displayed
T03	Wrong user name	Student/Teacher portal	User does not exist	User does not exist

Note: Testing was performed manually.

---

# Chapter 6

## Project Planning

In our university sometimes what happens is we students submit our assignments and by mistake it gets lost and the professor is not able to give us marks.

So this problem was addressed by our respected professor Dr Shubhasis Dash and from there we got an idea that to overcome this problem we can make an app.

In the initial stage our focus was primarily on the basic prerequisite knowledge that we needed to have in order to make the app.

In the second stage we started with the making of the app.

For making this app we had to learn a lot about the android app making at first.

There are five of us making this project so we divided the work among us. One was given the task of

learning the database management system as we had to make a database in order to store all the

information regarding the assignments of the students. The other person took the responsibility to

learn the linking of database to the android application, the third and fourth person took the

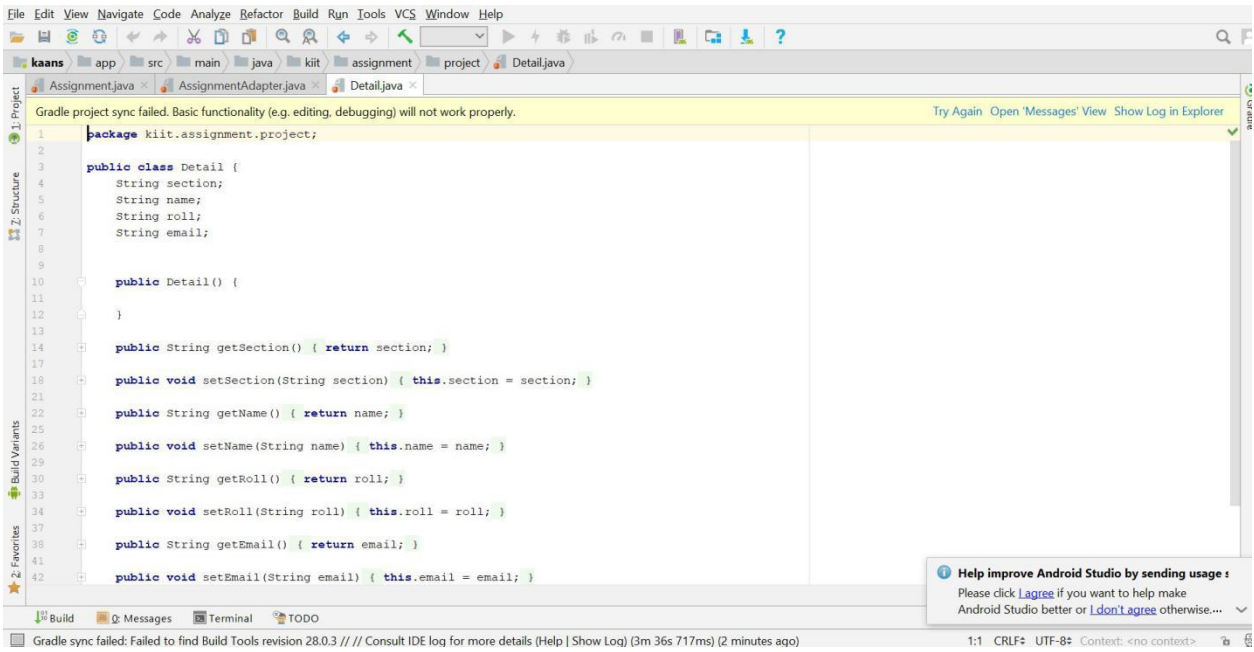
responsibility of making the software requirement specification for the project that we are making.

In the later stages of our project our primary focus was to make the application user friendly.

This was the entire process of project planning.

# Chapter 7

## Implementation

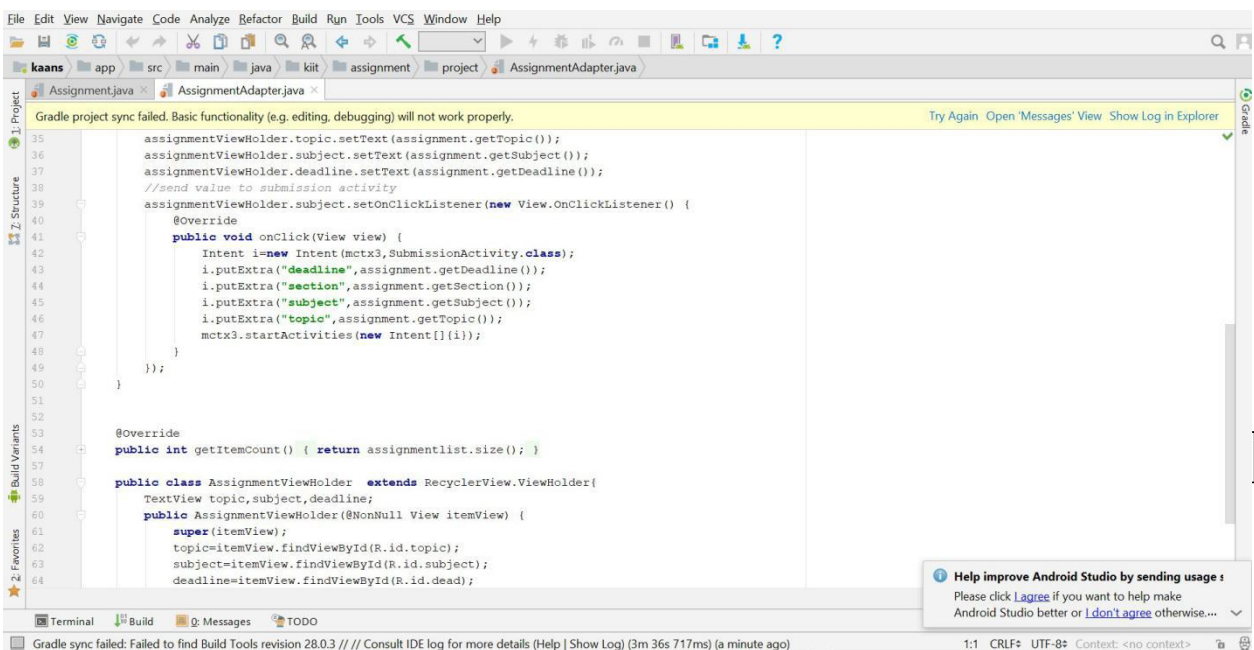


```
1 package kiit.assignment.project;
2
3 public class Detail {
4     String section;
5     String name;
6     String roll;
7     String email;
8
9
10    public Detail() {
11    }
12
13
14    public String getSection() { return section; }
17
18    public void setSection(String section) { this.section = section; }
21
22    public String getName() { return name; }
25
26    public void setName(String name) { this.name = name; }
29
30    public String getRoll() { return roll; }
33
34    public void setRoll(String roll) { this.roll = roll; }
37
38    public String getEmail() { return email; }
41
42    public void setEmail(String email) { this.email = email; }
```

Gradle project sync failed. Basic functionality (e.g. editing, debugging) will not work properly. Try Again Open 'Messages' View Show Log in Explorer

Help improve Android Studio by sending usage : Please click [I agree](#) if you want to help make Android Studio better or [I don't agree](#) otherwise...

Gradle sync failed: Failed to find Build Tools revision 28.0.3 /// Consult IDE log for more details (Help | Show Log) (3m 36s 717ms) (2 minutes ago) 1:1 CRLF UTF-8 Context: <no context>



```
35 assignmentViewHolder.topic.setText(assignment.getTopic());
36 assignmentViewHolder.subject.setText(assignment.getSubject());
37 assignmentViewHolder.deadline.setText(assignment.getDeadline());
38 //send value to submission activity
39 assignmentViewHolder.subject.setOnClickListener(new View.OnClickListener() {
40     @Override
41     public void onClick(View view) {
42         Intent i=new Intent(mctx3,SubmissionActivity.class);
43         i.putExtra("deadline",assignment.getDeadline());
44         i.putExtra("section",assignment.getSection());
45         i.putExtra("subject",assignment.getSubject());
46         i.putExtra("topic",assignment.getTopic());
47         mctx3.startActivities(new Intent[]{i});
48     }
49 });
50 }
51
52
53 @Override
54 public int getItemCount() { return assignmentlist.size(); }
57
58 public class AssignmentViewHolder extends RecyclerView.ViewHolder{
59     TextView topic,subject,deadline;
60     public AssignmentViewHolder(@NonNull View itemView) {
61         super(itemView);
62         topic=itemView.findViewById(R.id.topic);
63         subject=itemView.findViewById(R.id.subject);
64         deadline=itemView.findViewById(R.id.dead);
```

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```
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
kaans app src main java kiit assignment project SubmissionActivity.java
AssignmentAdapter.java Detail.java MainActivity.java SubmissionActivity.java
Gradle project sync failed. Basic functionality (e.g. editing, debugging) will not work properly. Try Again Open 'Messages' View Show Log in Explorer
@Override
33
34 protected void onCreate(Bundle savedInstanceState) {
35     super.onCreate(savedInstanceState);
36     setContentView(R.layout.activity_submission);
37     submit=findViewById(R.id.sub_submit);
38     back=findViewById(R.id.back);
39     section=findViewById(R.id.sub_section);
40     subject=findViewById(R.id.sub_subject);
41     roll=findViewById(R.id.sub_roll);
42     date=findViewById(R.id.sub_date);
43     topic=findViewById(R.id.sub_topic);
44     mAuth=FirebaseAuth.getInstance();
45     database = FirebaseDatabase.getInstance().getReference("Batch");
46     databaseReference=FirebaseDatabase.getInstance().getReference("Pending");
47
48     //getting all the previous value
49     Intent i=getIntent();
50     section.setText(i.getStringExtra("section"));
51     subject.setText(i.getStringExtra("subject"));
52     topic.setText(i.getStringExtra("topic"));
53     date.setText(new SimpleDateFormat("dd-MM-yyyy", Locale.getDefault()).format(new Date()));
54
55     //going back to previous activity
56     back.setOnClickListener(new View.OnClickListener() {
57         @Override
58         public void onClick(View view) {
59             Intent i=new Intent(SubmissionActivity.this,HomeActivity.class);
60             startActivity(i);
        }
    });
}
Build Messages Terminal TODO
Help improve Android Studio by sending usage :
Please click Lagree if you want to help make
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```

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Gradle project sync failed. Basic functionality (e.g. editing, debugging) will not work properly. Try Again Open 'Messages' View Show Log in Explorer
89
90 @Override
91 public void onStart() {
92     super.onStart();
93     FirebaseUser user=mAuth.getCurrentUser();
94     email=user.getEmail();
95     id="null";
96     database.addValueEventListener(new ValueEventListener() {
97         @Override
98         public void onDataChange(@NonNull DataSnapshot dataSnapshot) {
99             for (DataSnapshot database : dataSnapshot.getChildren()){
100                 Detail detail=database.getValue(Detail.class);
101                 if (email.equals(detail.getEmail())) {
102                     rollno=detail.getRoll();
103                     roll.setText(rollno);
104                     return;
105                 }
106             }
107         }
108         @Override
109         public void onCancelled(@NonNull DatabaseError databaseError) {
110         }
111     });
112 }
113
114 }
Build Messages Terminal TODO
Help improve Android Studio by sending usage :
Please click Lagree if you want to help make
Android Studio better or I don't agree otherwise...
Gradle sync failed: Failed to find Build Tools revision 28.0.3 /// Consult IDE log for more details (Help | Show Log) (3m 36s 717ms) (2 minutes ago) 1:1 CRLF UTF-8 Context: <no context>
```



kaans [D:\Project\kaans] - ...app\src\main\java\kiit\assignment\project\MainActivity.java [kaans] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

kaans app src main java kiit assignment project MainActivity.java

Assignment.java x AssignmentAdapter.java x Detail.java x MainActivity.java x

Gradle project sync failed. Basic functionality (e.g. editing, debugging) will not work properly. Try Again Open 'Messages' View Show Log in Explorer

```
1 package kiit.assignment.project;
2
3 import ...
4
5 public class MainActivity extends AppCompatActivity {
6     private final int SPLASH_DISPLAY_LENGTH = 2000;
7
8     @Override
9     protected void onCreate(Bundle savedInstanceState) {
10         super.onCreate(savedInstanceState);
11         setContentView(R.layout.activity_main);
12         new Handler().postDelayed(new Runnable() {
13             @Override
14             public void run() {
15                 /* Create an Intent that will start the Menu-Activity. */
16                 Intent mainIntent = new Intent(MainActivity.this, Login.class);
17                 MainActivity.this.startActivity(mainIntent);
18                 MainActivity.this.finish();
19             }
20         }, SPLASH_DISPLAY_LENGTH);
21     }
22 }
23
24
25
26
```

MainActivity | onCreate() | new Runnable

Build Messages Terminal TODO

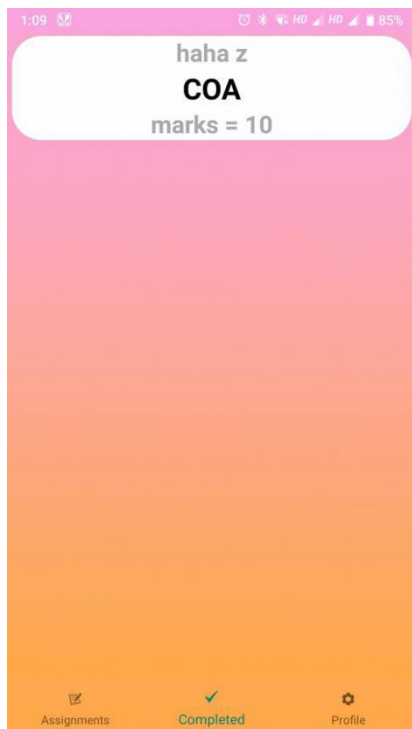
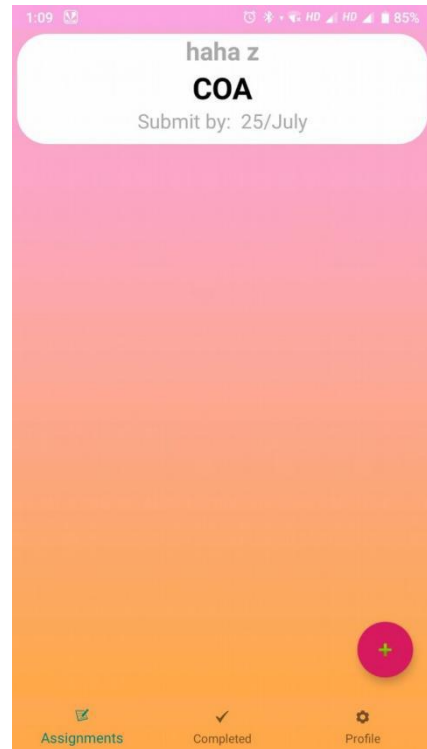
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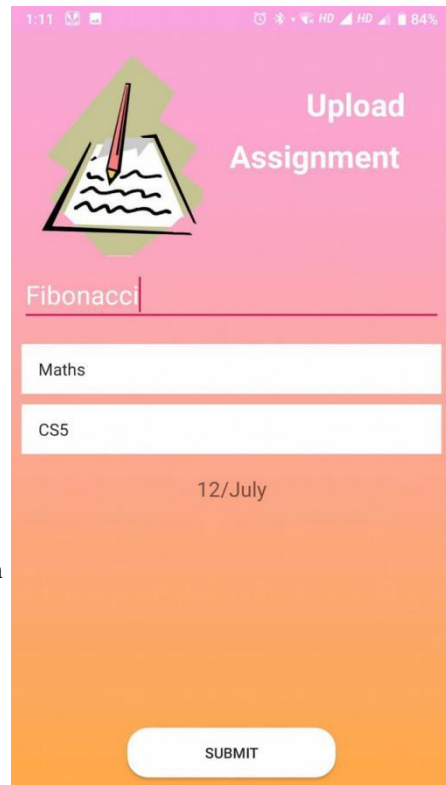
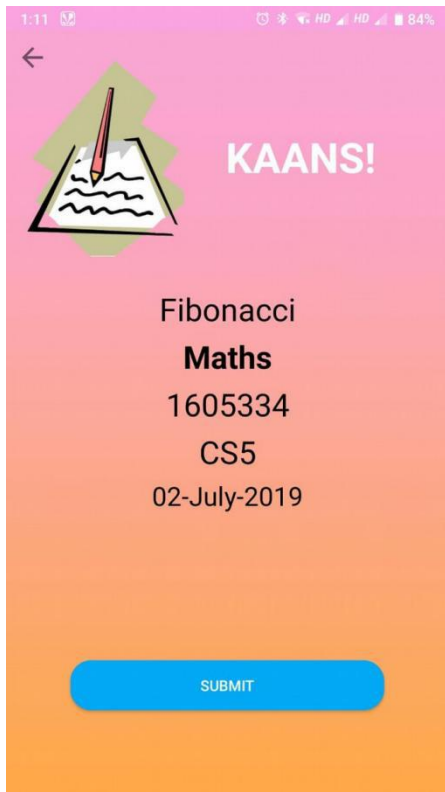
16:1 CRIF: UTF-8 Content: <no content>

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# Chapter 8

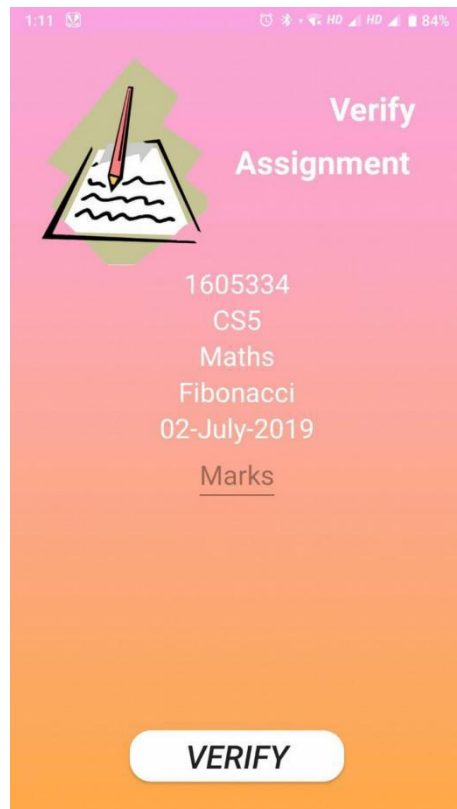
## Screenshots of Project





School of  
Computer  
Engineering,  
KIIT,  
BBSR

10



## Chapter 9

# Conclusion and Future Scope

### 10.1 Conclusion

The main objective of the project is to develop an application that would make submission of assignments easier. I did a lot of research in order to find out what the real problem a teacher faces and found out that most of the teachers face problems in managing and storing the assignments that they give to their students. I also did some research among students and found out that most of the students face problems in managing their time due to their hectic schedule. This product can help both the teachers and the students. Using this app the teachers can keep record of the assignments and will also be able to give unbiased marking for the assignments. The students will also be able to manage their time with the deadline function of the app. It is a very unique and easy way to monitor a student and will also help the students to make their assignments on time.

### 10.2 Future Scope

- Teaching will be modernized.
- Will enhance student's learning ability
- Managing assignments with ease
- Adding more security to the submission of assignments.
- Can be used in schools, college etc.
- No scope for plagiarism

## References

1. <https://developer.android.com/training/basics/firstapp>
2. <http://developer.android.com/training/index.html>
3. <http://docs.oracle.com/javase/tutorial/>
4. <http://developer.android.com/guide/components/fundamentals.html>
5. Professional Android Application Development by Reto Meier
6. Android cookbook by Ian F Darwin

## Appendix-I

### STUDENT'S CONTRIBUTION TO THE PROJECT

<b>NAME OF STUDENT</b>	Karan Khanna Abhijit Vasu Nilanjan Giri Ashutosh Joshi Sayan Saha
<b>ROLL NO</b>	1605450 1605334 1605371 1605350 1605525
<b>PROJECT TITLE</b>	KAANS
<b>ABSTRACT OF THE PROJECT (WITHIN 80 WORDS)</b>	An android application is developed in which an interface is created individually between a teacher and a student. The application is divided into 2 parts namely TEACHER and STUDENT.

### CONTRIBUTION

- 1. CONTRIBUTION TO THE PROJECT REPORT**

Karan Khanna – Made the conclusion of the project and also discussed about the future scope.  
Abhijit Vasu – Made the UML diagrams, System testing and done project planning.  
Sayan Saha – Done the overall designing of the project report and also seen whether everyone is working in the same direction or not.  
Nilanjan Giri – Made the abstract of the project and also the introduction part of the project report.  
Ashutosh Joshi – Made the SRS document and done the requirement analysis.
- 2. CONTRIBUTION DURING IMPLEMENTATION**

Ashutosh Joshi and Nilanjan Giri– Made the back end of the application and helped in making the database.  
Abhijit Vasu and Sayan Saha – Made the front end and helped in making the back end of the application  
Karan Khanna – Connected the database to the application and helped in making the database.

**3. CONTRIBUTION FOR  
THE PROJECT  
DEMONSTRATION /  
PRESENTATION**

Abhijit Vasu and Karan Khanna–Presented the project and explained about the working of it to the jury.

Sayan Saha and Nilanjan Giri – Explained about the tools used in the project and how it made life easy for us.

Ashutosh Joshi – Explained how the database was connected to application and how it is working.

SIGNATURE OF STUDENT

SIGNATURE OF GUIDE