Indexing Video

How To Run :-

A) Now the instructions for running Indexing Video in wi-fi mode, are as follows:

on server side :-

- install apache server in linux or windows in a laptop or PC. I have installed it in linux .
- Now go to /var/www/ directory.
- Make a new folder named “videos” , Put all the video lectures in this folder . This is link of video , we often used for testing our application .

http://www.it.iitb.ac.in/nmeict/eVideos/DBMSMAIN/content/preview.html

similarly you can put another videos in that folder .

- Make a new folder named “xml” , Put the corresponding xml files of those video lectures on this folder. I have put sample xml file also , that we have used . Xml file name should be exactly same to its corresponding video name .
- Make a new folder named “subtitles”,Put these subtitles files of those video lectures on this folder.
- Now Create a Hot Spot . Connect this server with this hot spot .
- Get the ip_address of server(in this case ip of this PC).

on client side :-

- Install IndexingVideo.apk in android device or tablet (version>=2.1)
- connect your android device also with the same hot spot created earlier.
- This type of application can be used in college campus . Where whole campus is in a wifi . Here we can create a server and put all the lectures videoes , xml files and subtitle files on server . And any student/students can connect his /her android device to the same wifi . And can access these lectures simultaneously.
- Start the application and press menu key of your device.

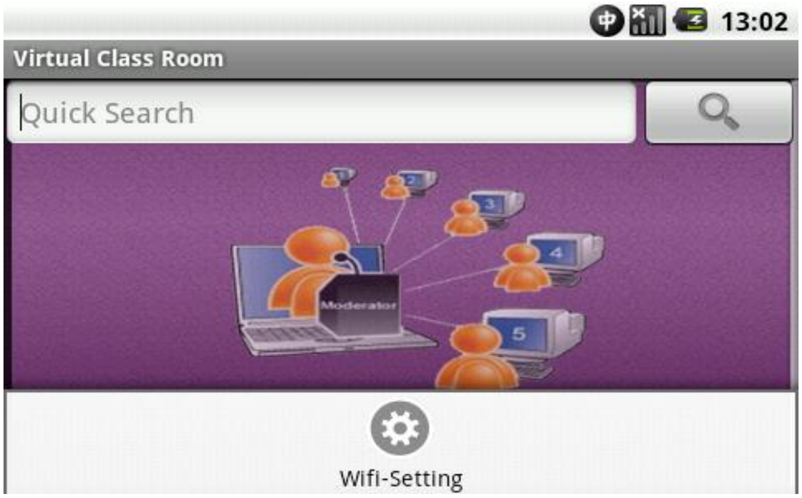
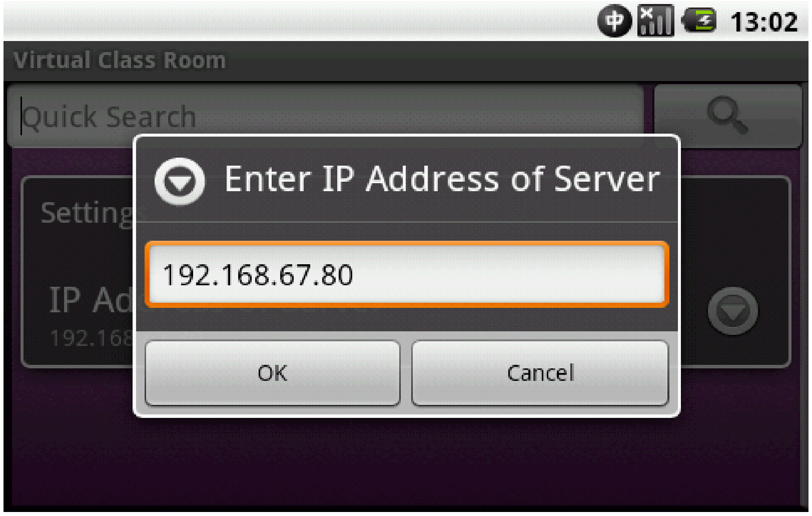


Fig 11: Wifi-Setting Menu

CODE: Intent to proceed setting request are as following

```
{
Intent i = new Intent(WiFiListVideoes.this,WiFiSettingsActivity.class);
startActivityForResult(i, OPEN_SETTINGS_REQUEST);
}
```

5) After clicking on WiFi settings a request will be sent to the android device, to open the alert prompt to enter the IP Address of the server.



Enter IP Address of Server

192.168.67.80

Fig 12: Enter IP of Server

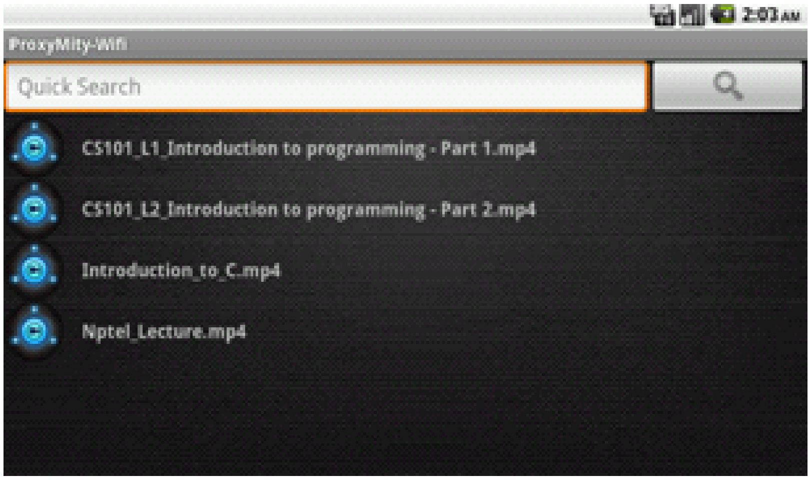
6)After click on OK, first of all validate function will be execute to check whether the entered IP Address is valid or not. Its corresponding code are as follows:

```
{
        public boolean validate_ip(final String ip) {
                Pattern pattern = Pattern.compile(IPADDRESS_PATTERN);
                Matcher matcher = pattern.matcher(ip);
                return matcher.matches();}
        }
```

7)If it returns true that means entered IP Address is valid and this IP Address is used to create the URL to access the list of videos which are resides on the server. Its corresponding code is as:

```
if (validate_ip(ip_address))
   {
            videopath = "http://" + ip_address + "/videos/";
                  try {
                            url1 = new URL(videopath);
                           ApacheURLLister lister1 = new ApacheURLLister();
                           list = lister1.listFiles(url1);
                            }
}
```

8) Now the user will get connect to the server and the list of videos those are residing on server will display on the screen.



CS101_L1_Introduction to programming - Part 1.mp4

CS101_L2_Introduction to programming - Part 2.mp4

Introduction_to_C.mp4

Nptel_Lecture.mp4

Fig 13: Video List Stored On Server

9) There are entire list of videos. User have to click on one of them to view. After clicking , the name of the video file get append with the existing path to the server and video will play in the next activity. And xml file (that contains subtopics in that video lec.)of corresponding video lecture wiil be parsed .

```
{
    Intent intent = new Intent(WiFiListVideoes.this,WiFiVideoview.class);
    intent.putExtra("xmlname", xmlname);
    intent.putExtra("ipaddress", ip_address);
    intent.putExtra("videofilepath", ss);
    startActivity(intent);
}
```

10) It is the videoview.class Activity to streaming video.

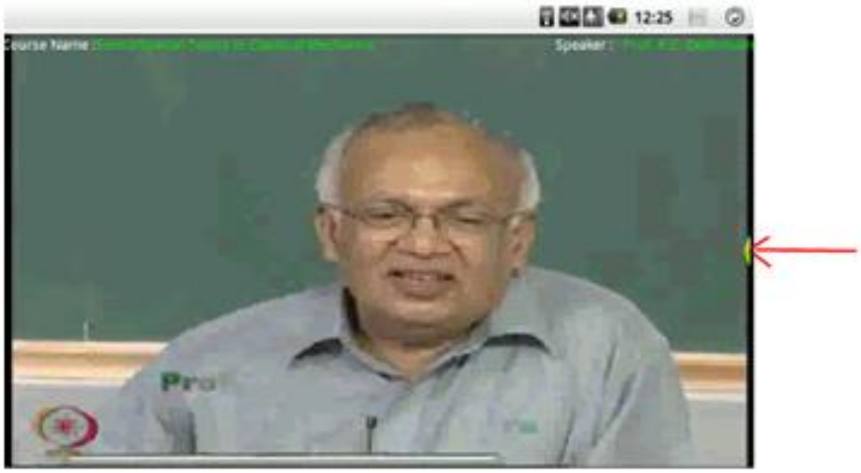


Fig 14: Sliding Drawer Functionality

11)An arrow pointed to a drawer, to open the index. Because android screen size is small so we have used this sliding drawer. So whenever user will click on that button the list of subtopics will

be displayed that is shown the screen shot below. Now user can click any of the subtopic and can directly jump to that particular point .

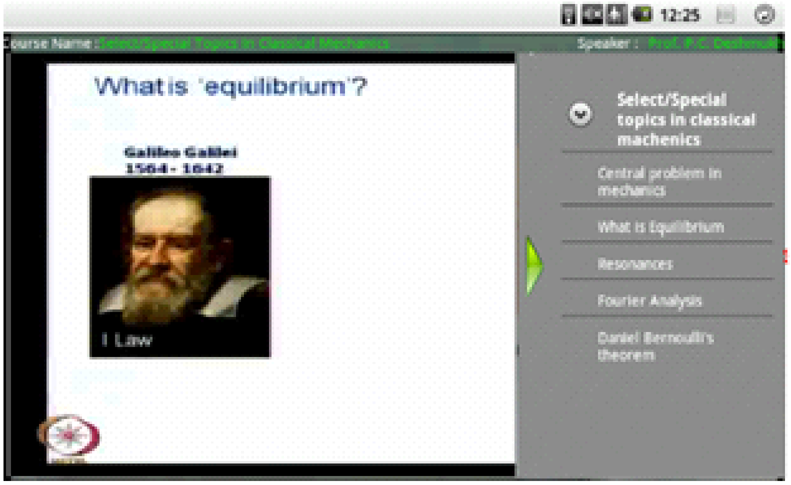

12:25
Course Name : Select/Special Topics in Classical Mechanics
Speaker : Prof. P.C. Deshmukh
What is 'equilibrium'?
Galileo Galilei
1564 - 1642
I Law
Select/Special topics in classical machenics
Central problem in mechanics
What is Equilibrium
Resonances
Fourier Analysis
Daniel Bernoulli's theorem

Fig 15: List Of Subtopics

12) Index contains all the subtopics corresponding to the video lecture. Its corresponding codes are as follows:

```
{
slidingDrawer.setOnDrawerOpenListener(new OnDrawerOpenListener() {

                public void onDrawerOpened()
{

                slideButton.setBackgroundResource(R.drawable.closearrow);
                slideButton.setVisibility(View.VISIBLE);
}
                });
}
```

13)Just click on any subtopic that you want and it will seek you to that particular subtopic.Now turns to describe the functionality on menu buttons. Pressing on menu will show two options.

- Choose Subtitles
- Bookmark

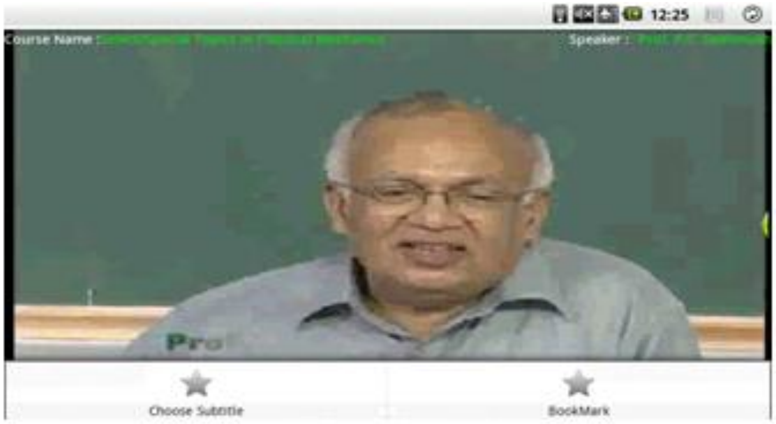
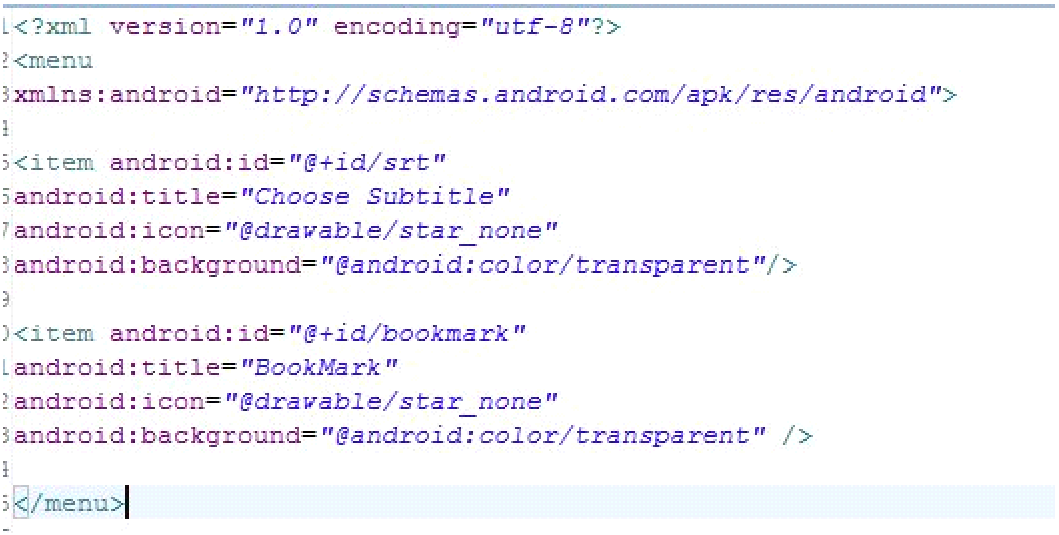


Fig 16: Menu Screen

Its corresponding menu.xml is below .



```
<?xml version="1.0" encoding="utf-8"?>
<menu
xmlns:android="http://schemas.android.com/apk/res/android">

<item android:id="@+id/srt"
android:title="Choose Subtitle"
android:icon="@drawable/star_none"
android:background="@android:color/transparent"/>

<item android:id="@+id/bookmark"
android:title="BookMark"
android:icon="@drawable/star_none"
android:background="@android:color/transparent" />

</menu>
```

14) Choose Subtitles

After clicking on it, next activity will open with the list of subtitle files are on the server . These files should .srt files and can have any language (hindi , english , marathi) for better understanding of video lectures ., user have to select the corresponding subtitle file to the video lecture.

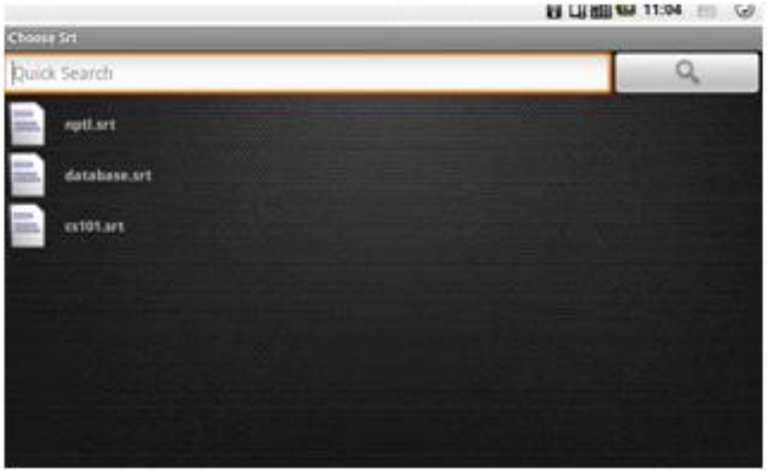


Fig 17: List of Subtitles

After selecting the subtitle file, it will play along with the video like this

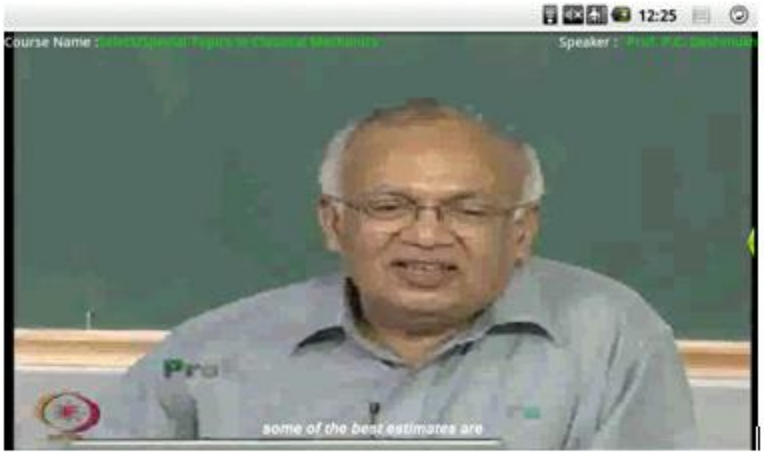
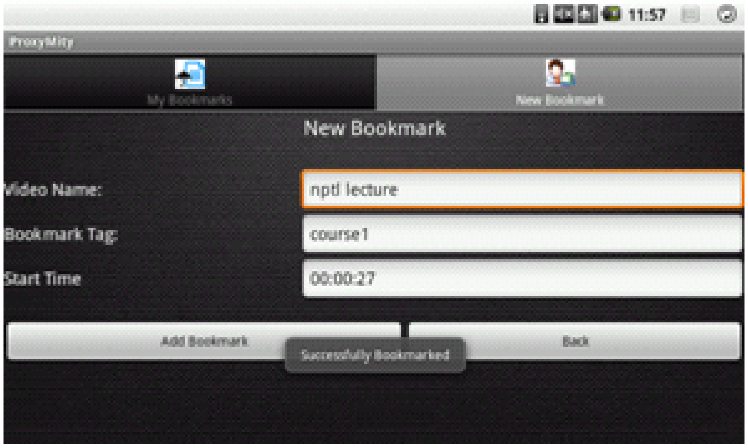

12:25
Course Name : Select/Special Topics in Classical Mechanics
Speaker : Prof. P.C. Deshmukh
some of the best estimates are

Fig 18: Playing Video with Subtitles

15) Bookmark

Bookmark section will open a new activity . In bookmark section a student can bookmark important timings in video lectures . These timings are stored on data base along with video name and topic name , list of options in this section are :

- Create Bookmark
- My Bookmark
- Update Bookmark



New Bookmark

Video Name: nptl lecture

Bookmark Tag: course1

Start Time 00:00:27

Fig 19: Add Bookmark

16) Create Bookmark : it takes 3 entries are as following

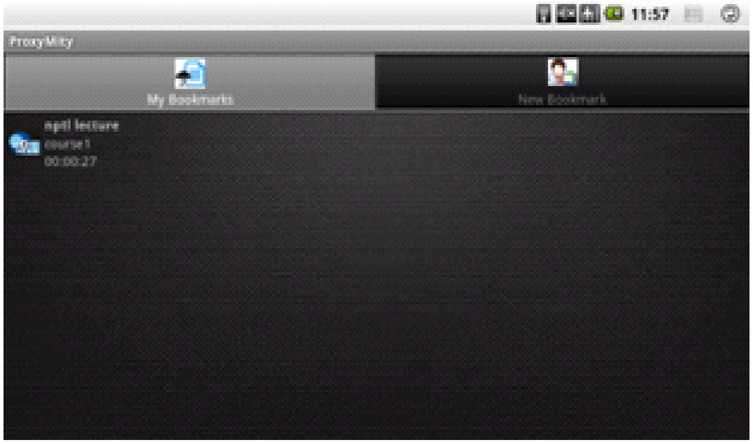
- Enter the name of corresponding Video Lecture
- Enter the bookmark name
- Enter the starting time of the bookmark wherever you want (start time will captured automatically when you will press on create bookmark)

And then hit "ADD BOOKMARK" to add to "My Bookmarks" .

Its corresponding functional code is as following:

```
{
      mySQLiteAdapter = new WiFiSQLiteAdapter(this);
      mySQLiteAdapter.openToWrite();
      cursor = mySQLiteAdapter.queueAll();
     String[] from = new String[] { WiFiSQLiteAdapter.KEY_CONTENT1,
                                    WiFiSQLiteAdapter.KEY_CONTENT2,
                                    WiFiSQLiteAdapter.KEY_CONTENT3 };
       int[] to = new int[] { R.id.txt1, R.id.txt2, R.id.txt3 };
}
```

17) My Bookmark: It will show all the bookmarks created by the user

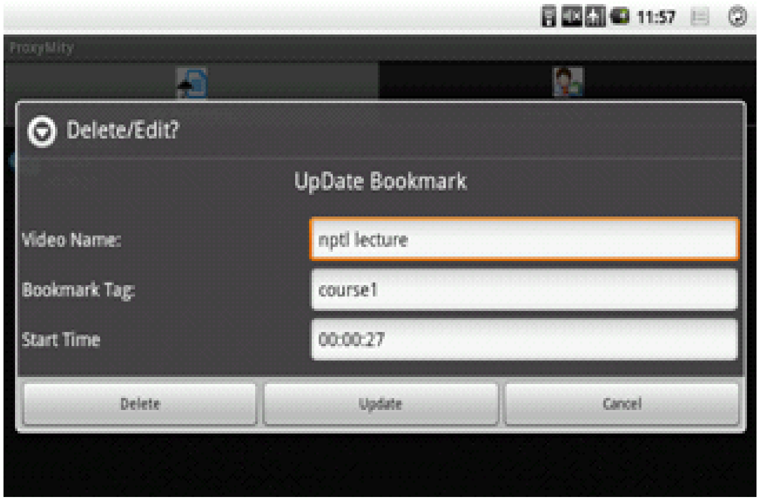


nptl lecture
course1
00:00:27

Fig 20: My Bookmarks

Now user can select any of the bookmark that he done last time and can play that video from that particular time that is stored in Sqlite Database.

18) Update Bookmark: For updating the timings and video name of a bookmark



UpDate Bookmark

Video Name:	nptl lecture
Bookmark Tag:	course1
Start Time	00:00:27

Fig 21: Update Bookmarks

LongClick On the any of the list item in my bookmark section, this will allow a user to delete or update the bookmark .

B) For using the Indexing Video in SD-Card mode, put some video lectures on sdcard and also place corresponding xml files in sd card . And run the application . List of video lectures stored in sdcard will be displayed .

Remaning instructions are the same.