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Mobile Computing

Project Android

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Overview

I create a blog application that is called My Story. This app actually aims to save personal important moment in life. This app connects to Firebase database. The user can store informations such as picture, description and the title. Moreover, this app can allow the user to draw the image before uploading it to Firebase.
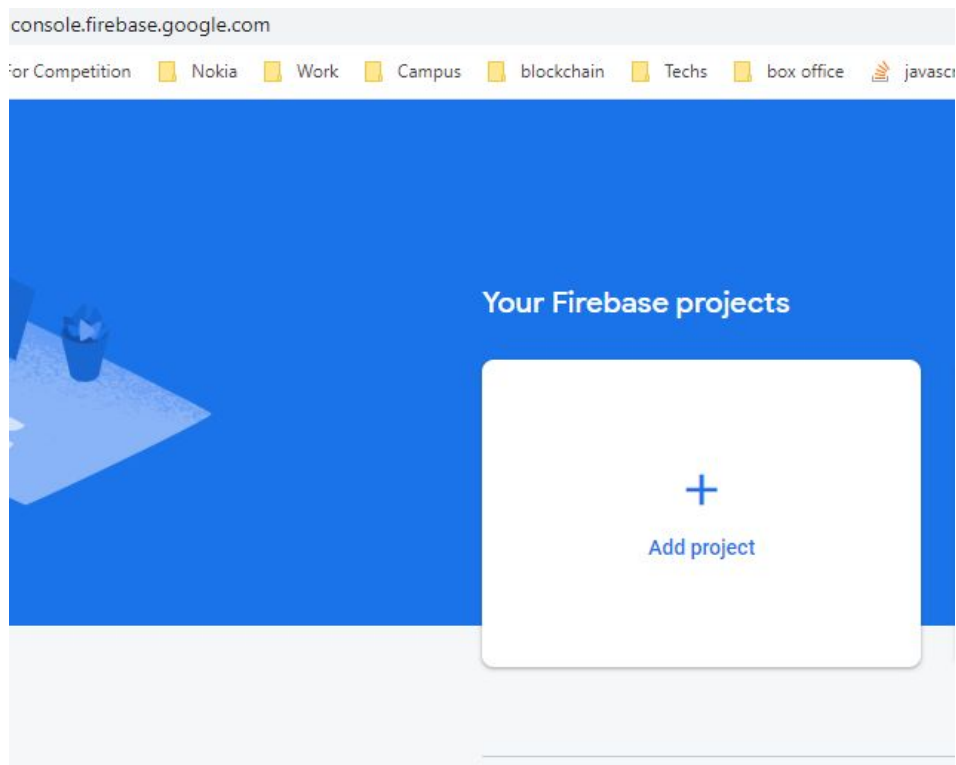
Fetaures:
- Create, read and delete blog post
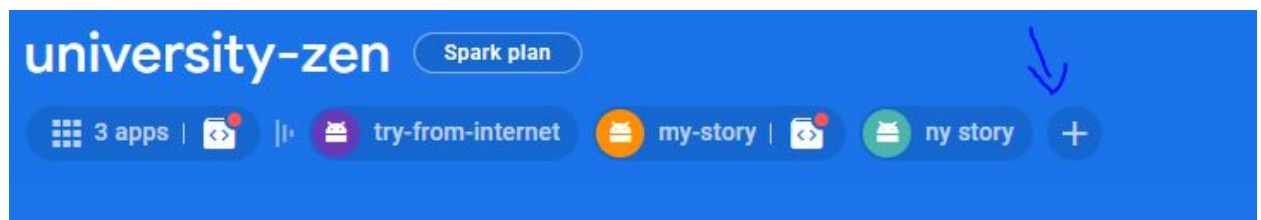- Possibility to edit the image before uploading

Implementation
1. Firebase Configuration
   In order to use the firebase feature, I need to create a project in console.firebase.google.com

   After that, I need to add the app

   When the new pop up appears, I chose android.

When android app is clicked.

I need to register my app package name, nick name and sha1 certificate. To get the sha1, I clicked gradle -> project -> Tasks -> android -> signingReport
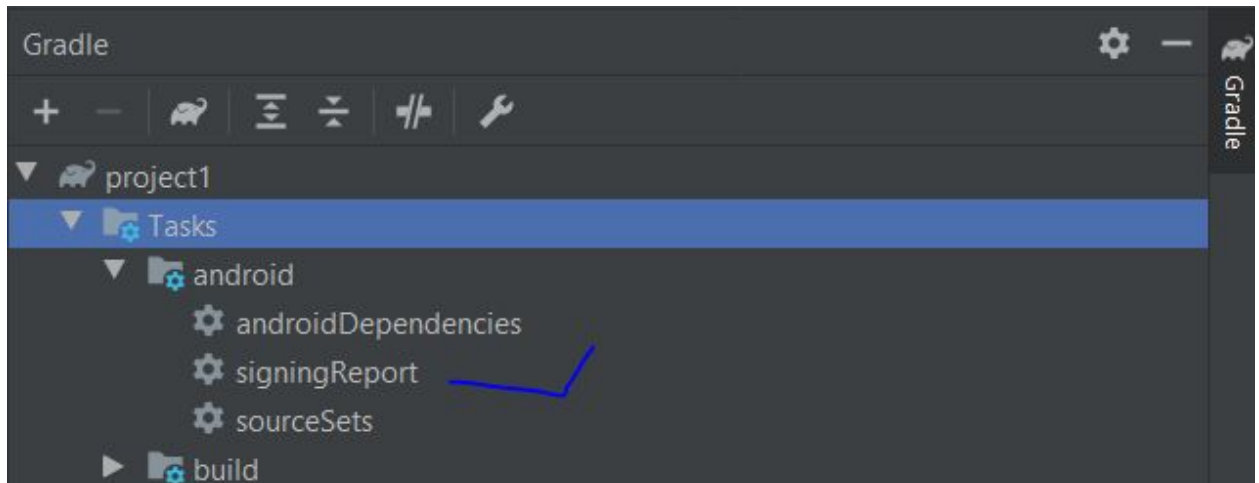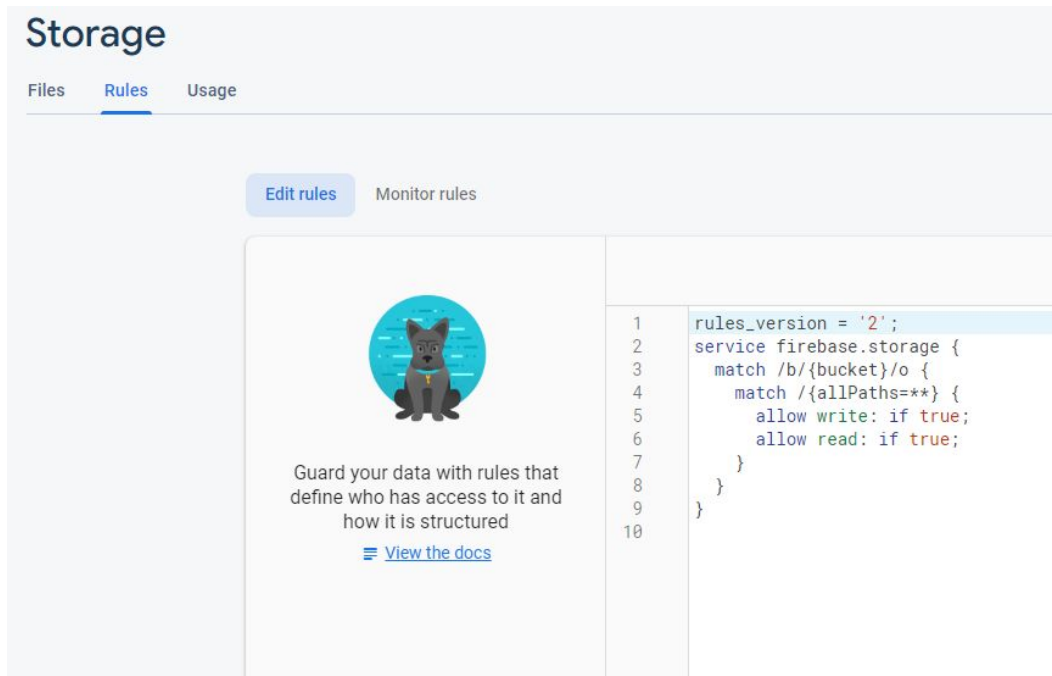
Once I got the certificate, I register my app. When it's registered, they will generate service-google.json. This contains some credentials that must be put inside the app folder of my project.

Moreover, some rules in the database and storage of Firebase must be configured

2. Create the needed configuration for create, read and delete post and Create configuration for Image editing. Some required dependencies are also implemented such as firebase-databse, storage and some photo dependencies. The following image shows the complete dependencies.

```
dependencies {
    implementation fileTree(dir: 'libs', include: ['*.jar'])
    testImplementation 'junit:junit:4.12'
    implementation 'com.android.support:appcompat-v7:28.0.0'
    implementation 'com.android.support.constraint:constraint-layout:1.1.3'
    implementation 'com.android.support:cardview-v7:28.0.0'
    implementation 'com.android.support:recyclerview-v7:28.0.0'
    implementation 'com.squareup.picasso:picasso:2.5.2'
    implementation 'com.android.support:design:28.0.0'
    implementation 'com.android.support:support-v4:28.0.0'
    implementation 'com.android.support:support-vector-drawable:28.0.0'

    //foto
    implementation 'com.android.support:design:28.0.0-alpha3'
    implementation 'com.jaredrummler:colorpicker:1.0.1'
    implementation 'com.github.chrisbanes:PhotoView:2.1.4'

    //firebase
//    implementation 'com.google.firebase:firebase-auth:11.8.0'
    implementation 'com.google.firebase:firebase-database:11.8.0'
//    implementation 'com.firebaseui:firebase-ui-database:3.2.2'
    implementation 'com.google.firebase:firebase-storage:11.8.0'
}

apply plugin: 'com.google.gms.google-services'
```
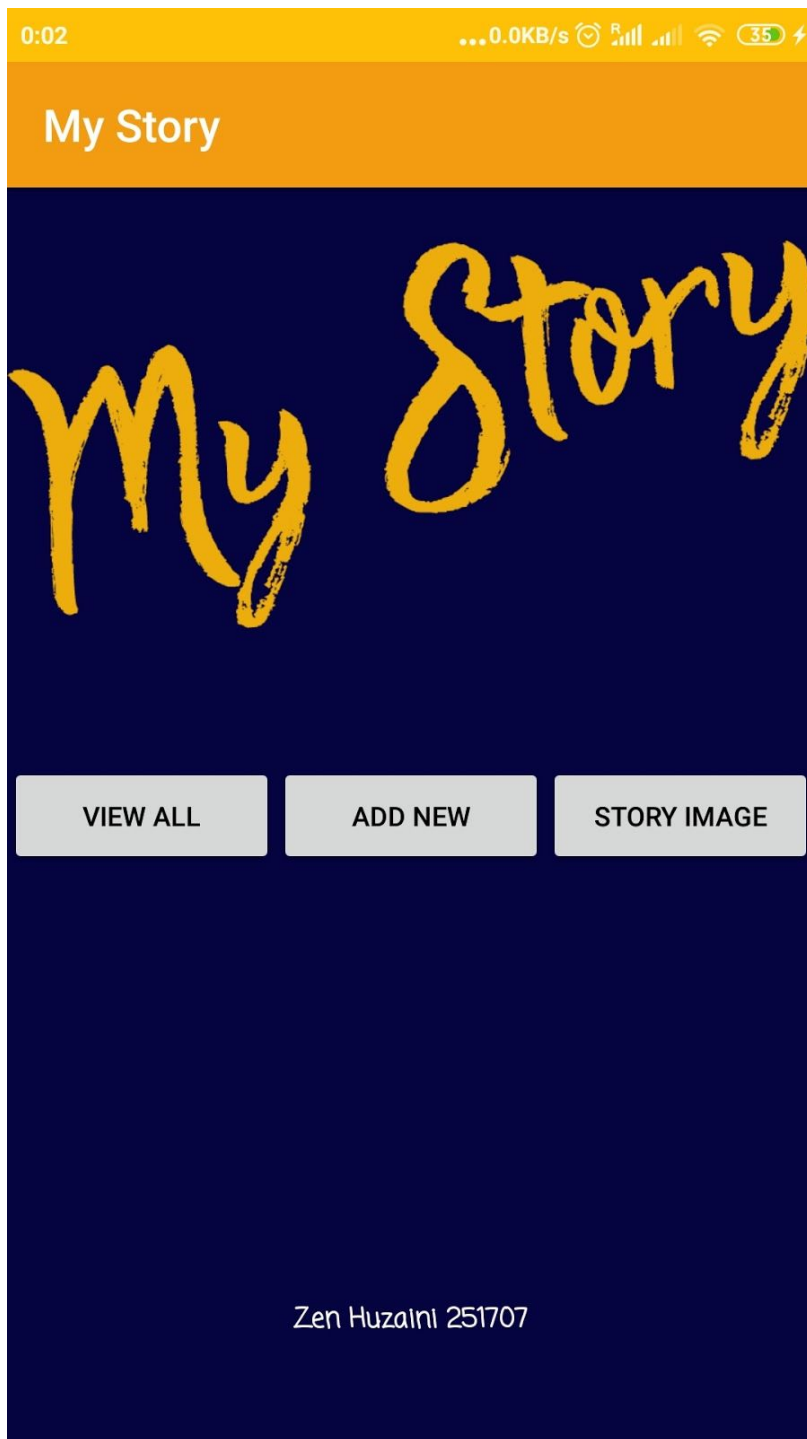
3. Test the App

This is the main layout

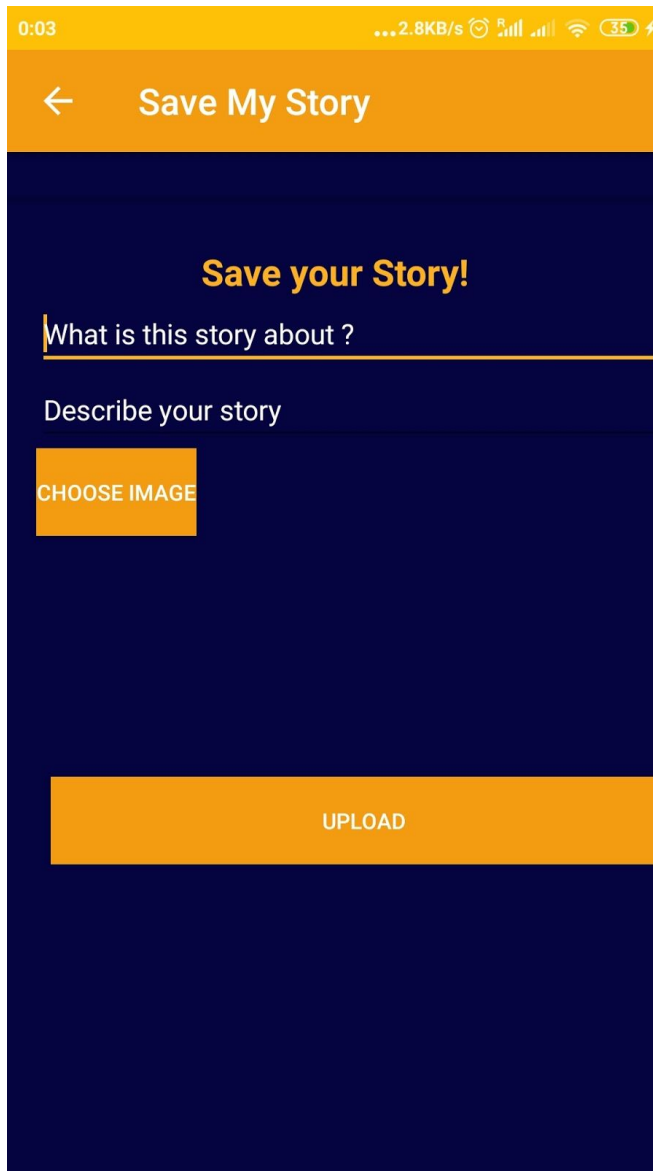View all : to see uploaded posts
Add new : to add new post
Story Image : to edit the image before uploading it with the post

This is the layout if the "View all" button is clicked

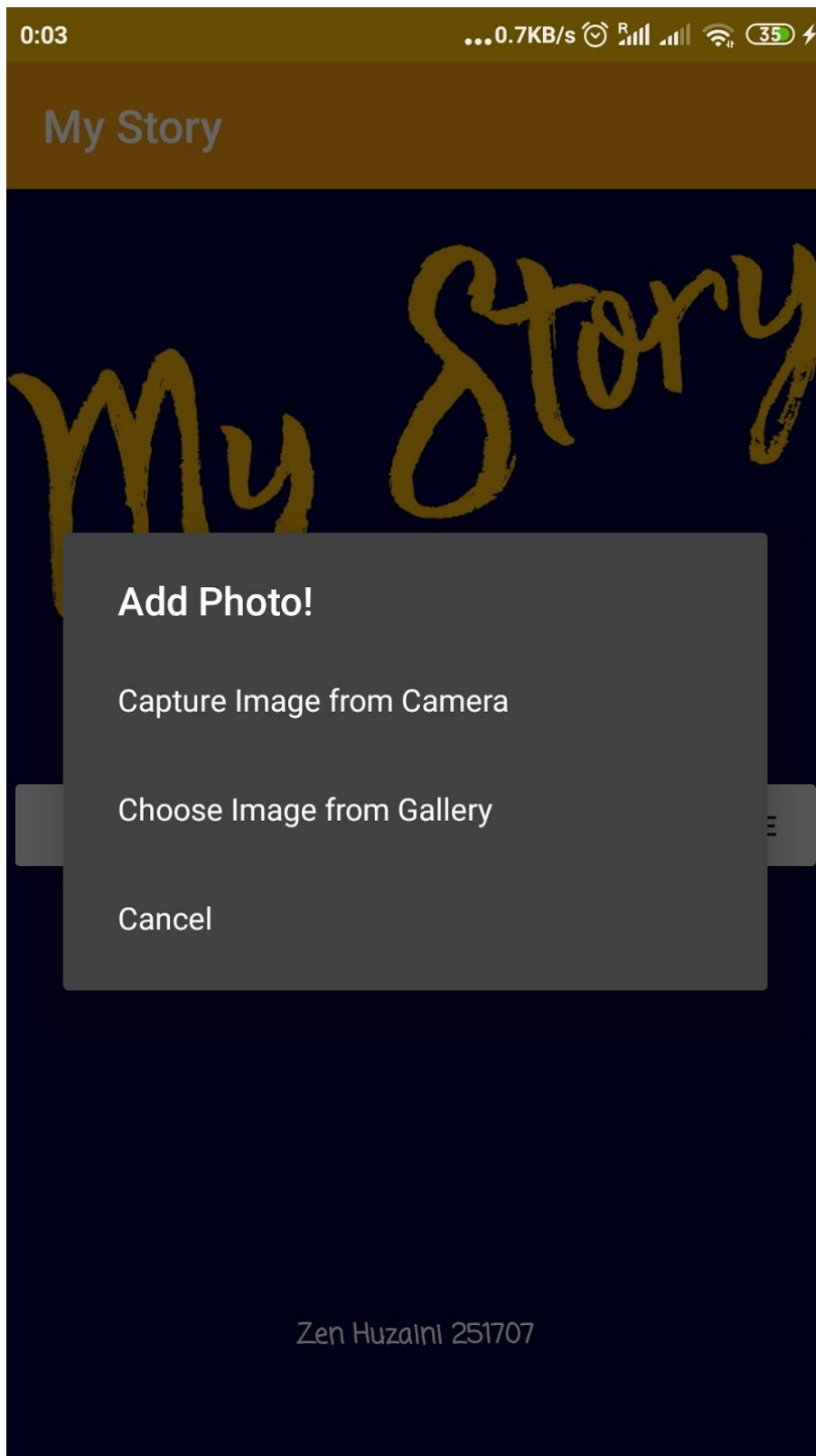It shows empty list because I deleted all of the post contents.

When add new is clicked, It will show a new layout that contains some fields to fill and "choose image option" to pick image.

If the button upload is clicked, then the data will be uploaded.

Here is the layout if the story image is clicked.

I use the intent for accessing media

When choosing image from gallery, I pick one of the image.

WHen the image is loaded, I can click Draw your story

After that I can draw the line for the image. This feature can allow the picture to make the size of the brush bigger or smaller. Also it has possibility to change the color. When We finish. We can click save icon.
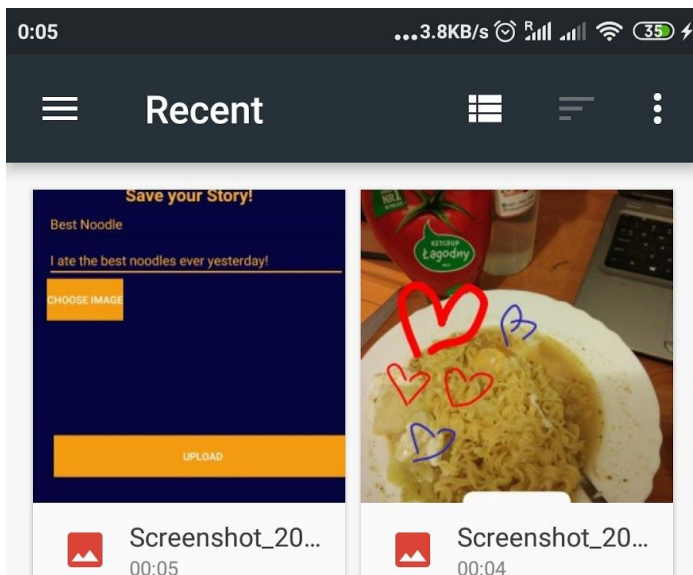
If the image is saved, there will be a notification toast that image has been saved to the gallery. After that we can press back or X icon to go back.

Here are some images when I tried to add the posts
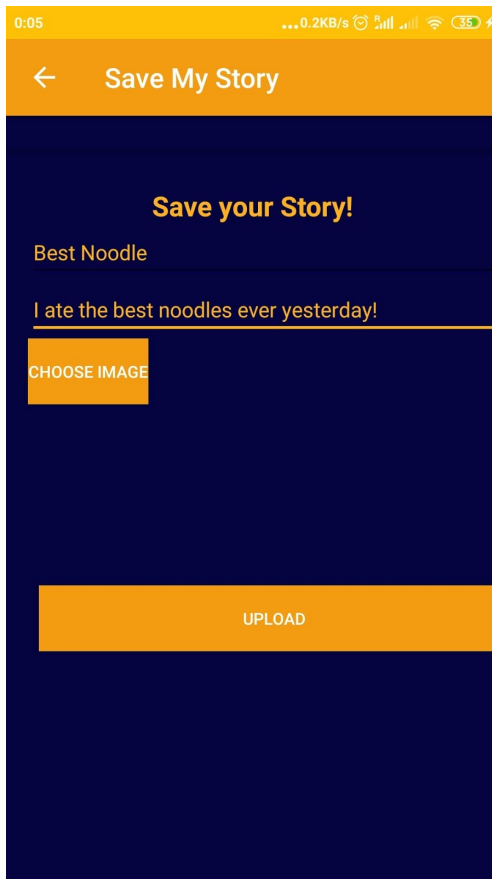
When I access chose image, my gallery will be shown (if I choose to select the image form gallery)

Then I can pick the image.

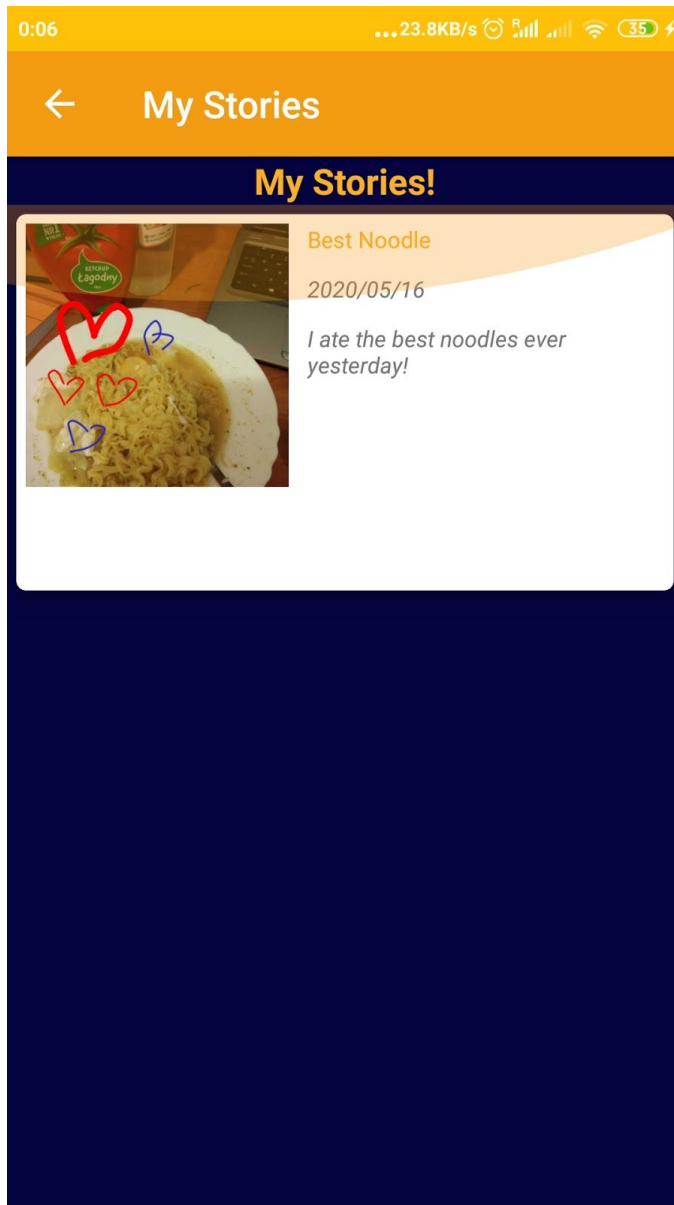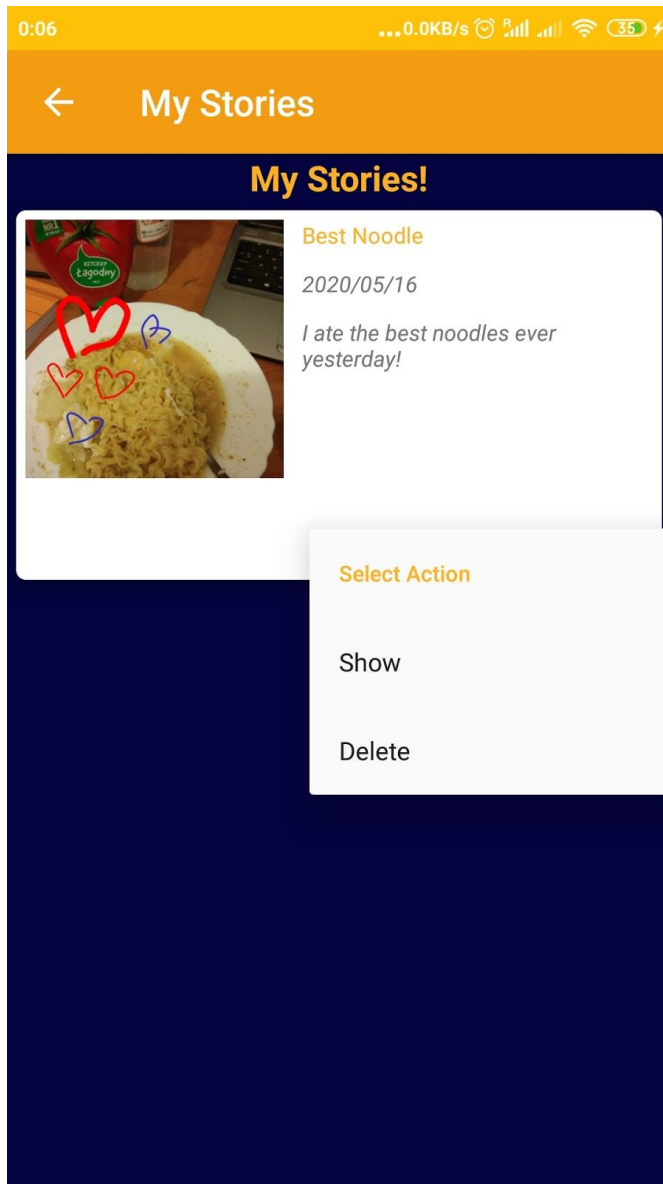When all the data has been inserted, Then wen can upload it
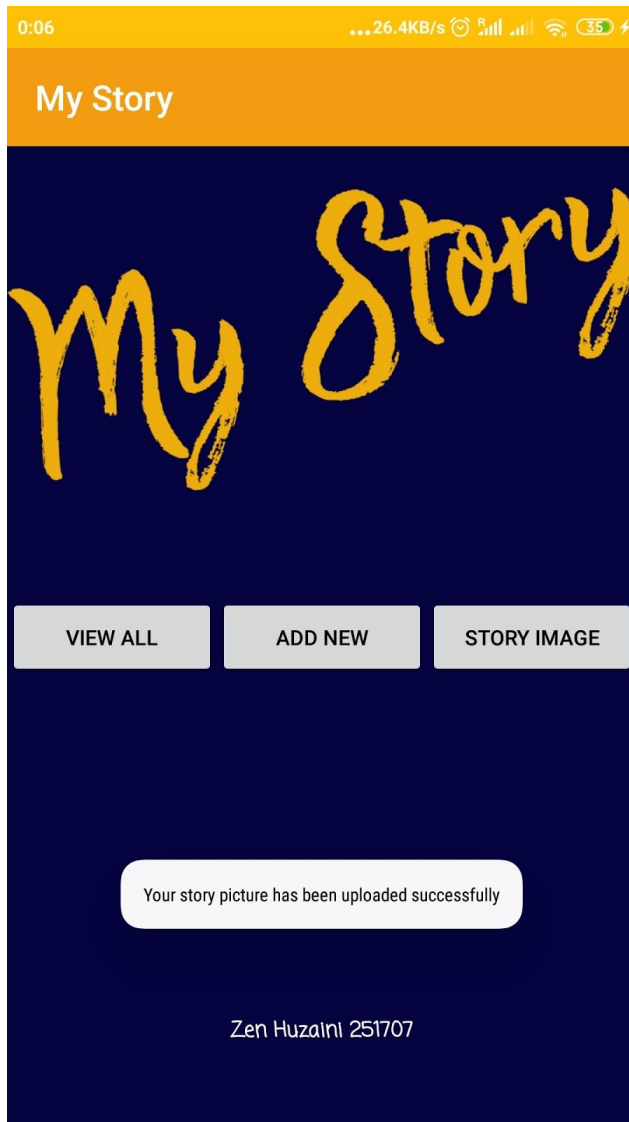
The toast will be shown if the picture has been successfully uploaded or not.

To check if the post has been uploaded or not, I click the view all. Then I can see that my post has been uploaded.
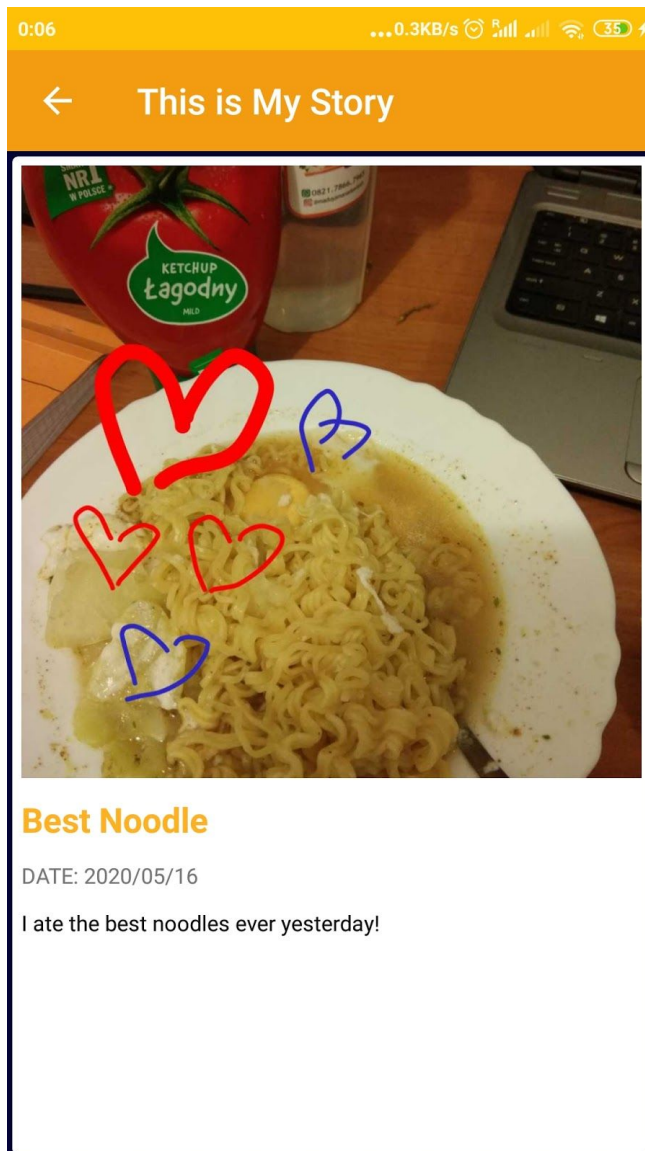
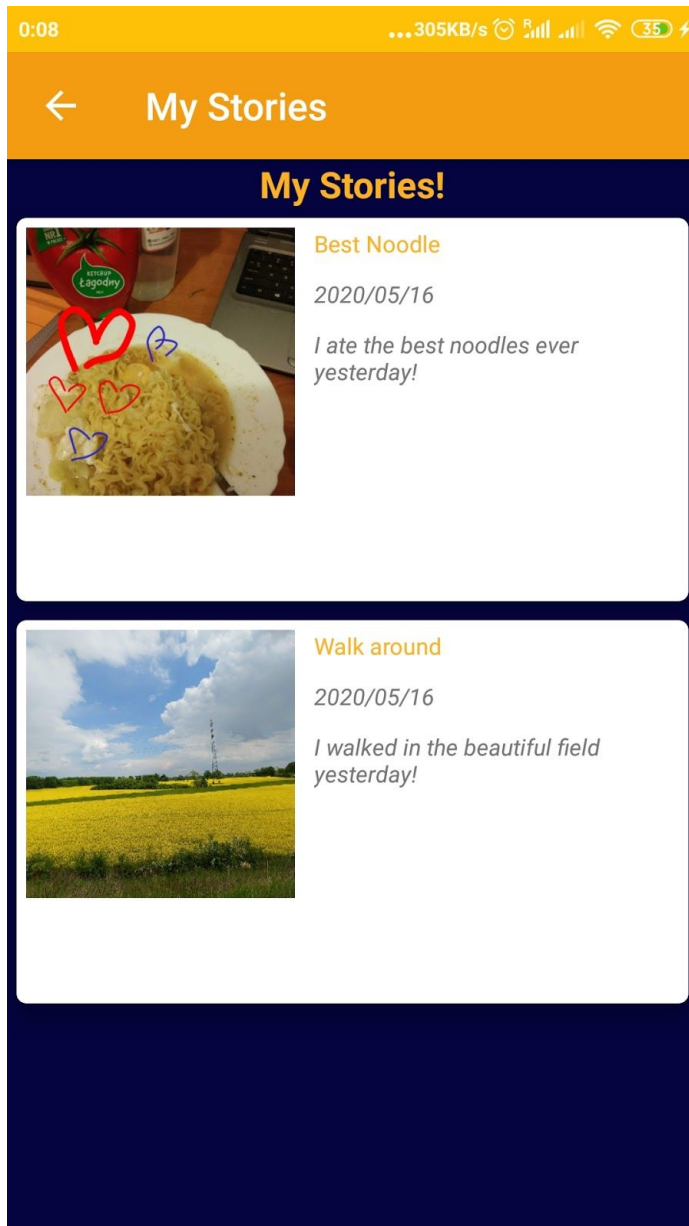When I press long the post then some options will be shown

But the detail of the post will also be shown if we click the thumbnail directly
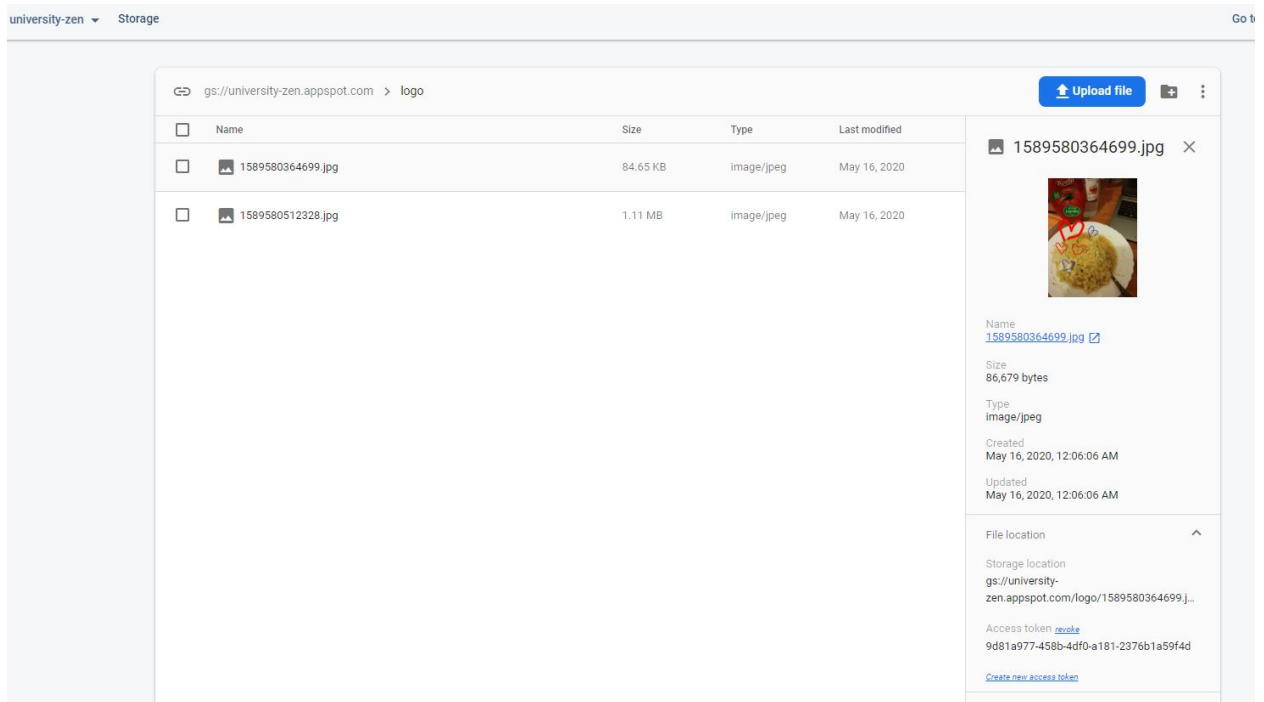
Here is the post details that I have.

I tried to add new post

I also checked if the image was uploaded in the firebase storage. And the image was uploaded to the storage

And the informations are all saved to database