

Assessment task

Add Dependencies in build.gradle (Module: app)

```
Dependencies {  
    Implementation 'com.squareup.retrofit2:retrofit:2.9.0'  
    Implementation 'com.squareup.retrofit2:converter-gson:2.9.0'  
    Implementation 'androidx.recyclerview:recyclerview:1.2.1'  
    Implementation 'androidx.appcompat:appcompat:1.4.1'  
    Implementation 'com.google.android.material:material:1.6.1'  
}
```

Create API Interface(ApiService.java)

```
Import retrofit2.Call;  
Import retrofit2.http.Body;  
Import retrofit2.http.Headers;  
Import retrofit2.http.POST;  
  
Public interface ApiService {  
    @Headers("Content-Type: application/json")  
    @POST("customer/login")  
    Call<ApiResponse> login(@Body LoginRequest request);  
}
```

Create Model Classes

```
Public class LoginRequest {  
    Private String email;  
  
    Public LoginRequest(String email) {  
        This.email = email;  
    }  
}
```

API Response Model

```
Import java.util.List;  
  
Public class ApiResponse {  
    Private Data data;  
  
    Public Data getData() {  
        Return data;  
    }  
}  
  
Class Data {  
    Private List<Service> availableServices;  
  
    Public List<Service> getAvailableServices() {  
        Return availableServices;  
    }  
}
```

```
Class Service {  
    Private String name;  
    Private String cost;  
    Private String servid;  
    Private String description;  
  
    Public String getName() {  
        Return name;  
    }  
  
    Public String getCost() {  
        Return cost;  
    }  
  
    public String getServid() {  
        return servid;  
    }  
  
    public String getDescription() {  
        return description;  
    }  
}
```

Set Up Retrofit

Create a singleton instance

```
Import retrofit2.Retrofit;
```

```
Import retrofit2.converter.gson.GsonConverterFactory;
```

```
Public class RetrofitClient {
```

```
    Private static final String BASE_URL = https://api.thenotary.app/;
```

```
    Private static Retrofit retrofit = null;
```

```
    Public static ApiService getInstance() {
```

```
        If (retrofit == null) {
```

```
            Retrofit = new Retrofit.Builder()
```

```
                .baseUrl(BASE_URL)
```

```
                .addConverterFactory(GsonConverterFactory.create())
```

```
                .build();
```

```
        }
```

```
        Return retrofit.create(ApiService.class);
```

```
    }
```

```
}
```

Create RecyclerView Adapter

(ServiceAdapter.java)

```
Import android.view.LayoutInflater;
```

```
Import android.view.View;
```

```
Import android.view.ViewGroup;
```

```
Import android.widget.TextView;
```

```
Import androidx.annotation.NonNull;
```

```
Import androidx.recyclerview.widget.RecyclerView;
```

```
Import java.util.List;
```

```
Public class ServiceAdapter extends  
RecyclerView.Adapter<ServiceAdapter.ServiceViewHolder> {
```

```
    Private List<Service> serviceList;
```

```
    Public ServiceAdapter(List<Service> serviceList) {
```

```
        This.serviceList = serviceList;
```

```
    }
```

```
    Public void updateList(List<Service> newList) {
```

```
        serviceList = newList;
```

```
        notifyDataSetChanged();
```

```
    }
```

```
@NonNull
```

```
@Override
```

```
    Public ServiceViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int  
    viewType) {
```

```
        View view = LayoutInflater.from(parent.getContext())
```

```
            .inflate(R.layout.item_service, parent, false);
```

```
        Return new ServiceViewHolder(view);
```

```
    }
```

@Override

```
Public void onBindViewHolder(@NonNull ServiceViewHolder holder, int position) {
```

```
    Service service = serviceList.get(position);
```

```
    Holder.name.setText(service.getName());
```

```
    Holder.cost.setText("Cost: " + service.getCost());
```

```
    String serviceText;
```

```
    Switch (service.getServiceId()) {
```

```
        Case "LSA_ONLINE":
```

```
            serviceText = "Real Estate Notarization";
```

```
            break;
```

```
        case "LSA_OFFLINE":
```

```
            serviceText = "Real Estate Offline Notarization";
```

```
            break;
```

```
        default:
```

```
            serviceText = service.getServiceId();
```

```
            break;
```

```
    }
```

```
    Holder.serviceId.setText(serviceText);
```

```
}
```

@Override

```
Public int getItemCount() {
```

```
    Return serviceList.size();
```

```
}
```

```
Public static class ServiceViewHolder extends RecyclerView.ViewHolder {
```

```
    TextView name, cost, serviceId;
```

```
    Public ServiceViewHolder(View view) {
```

```
        Super(view);
```

```
        Name = view.findViewById(R.id.serviceName);
```

```
        Cost = view.findViewById(R.id.serviceCost);
```

```
        serviceId = view.findViewById(R.id.serviceId);
```

```
    }
```

```
}
```

```
}
```

Implement MainActivity

Modify (MainActivity.java)

```
Import android.os.Bundle;
```

```
Import android.text.Editable;
```

```
Import android.text.TextWatcher;
```

```
Import android.widget.EditText;
```

```
Import android.widget.Toast;
```

```
Import androidx.appcompat.app.AppCompatActivity;
```

```
Import androidx.recyclerview.widget.LinearLayoutManager;
```

```
Import androidx.recyclerview.widget.RecyclerView;
```

```
Import java.util.ArrayList;
```

```
Import java.util.List;
Import retrofit2.Call;
Import retrofit2.Callback;
Import retrofit2.Response;
```

```
Public class MainActivity extends AppCompatActivity {
    Private ServiceAdapter adapter;
    Private List<Service> serviceList = new ArrayList<>();
```

```
@Override
```

```
Protected void onCreate(Bundle savedInstanceState) {
```

```
    Super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
```

```
    RecyclerView recyclerView = findViewById(R.id.recyclerView);
```

```
    EditText searchInput = findViewById(R.id.searchInput);
```

```
    recyclerView.setLayoutManager(new LinearLayoutManager(this));
```

```
    adapter = new ServiceAdapter(serviceList);
```

```
    recyclerView.setAdapter(adapter);
```

```
    fetchServices();
```

```
// Implement search functionality
```

```
searchInput.addTextChangedListener(new TextWatcher() {
```


@Override

Public void beforeTextChanged(CharSequence s, int start, int count, int after) {}

@Override

Public void onTextChanged(CharSequence s, int start, int before, int count) {

filterList(s.toString());

}

@Override

Public void afterTextChanged(Editable s) {}

});

}

Private void fetchServices() {

ApiService apiService = RetrofitClient.getInstance();

Call<ApiResponse> call = apiService.login(new
LoginRequest("nandhakumar1411@gmail"));

Call.enqueue(new Callback<ApiResponse>() {

@Override

Public void onResponse(Call<ApiResponse> call, Response<ApiResponse>
response) {

If (response.isSuccessful() && response.body() != null) {

serviceList = response.body().getData().getAvailableServices();

adapter.updateList(serviceList);

```

        } else {
            Toast.makeText(MainActivity.this, "Failed to load data",
Toast.LENGTH_SHORT).show();
        }
    }
}

```

```

@Override

Public void onFailure(Call<ApiResponse> call, Throwable t) {

    Toast.makeText(MainActivity.this, "Error: " + t.getMessage(),
Toast.LENGTH_SHORT).show();
}

});
}

```

```

Private void filterList(String query) {
    List<Service> filteredList = new ArrayList<>();
    For (Service service : serviceList) {
        If (service.getName().toLowerCase().contains(query.toLowerCase()) ||
            Service.getDescription().toLowerCase().contains(query.toLowerCase())) {
            filteredList.add(service);
        }
    }
    Adapter.updateList(filteredList);
}
}

```

Create Layout Files

Activity_main.xml

```
<LinearLayout xmlns:android=http://schemas.android.com/apk/res/android
```

```
    Android:layout_width="match_parent"
```

```
    Android:layout_height="match_parent"
```

```
    Android:orientation="vertical"
```

```
    Android:padding="16dp">
```

```
    <EditText
```

```
        Android:id="@+id/searchInput"
```

```
        Android:layout_width="match_parent"
```

```
        Android:layout_height="wrap_content"
```

```
        Android:hint="Search services"
```

```
        Android:padding="8dp"
```

```
        Android:inputType="text"/>
```

```
    <androidx.recyclerview.widget.RecyclerView
```

```
        Android:id="@+id/recyclerView"
```

```
        Android:layout_width="match_parent"
```

```
        Android:layout_height="match_parent"/>
```

```
</LinearLayout>
```

Item_service.xml

```
<TextView
```

```
    Android:id="@+id/serviceName"
```

```
Android:textSize="18sp"/>
```

```
<TextView
```

```
Android:id="@+id/serviceCost"
```

```
Android:textSize="16sp"/>
```

```
<TextView
```

```
Android:id="@+id/serviceId"
```

```
Android:textSize="14sp"/>
```