[Compte Rendu]

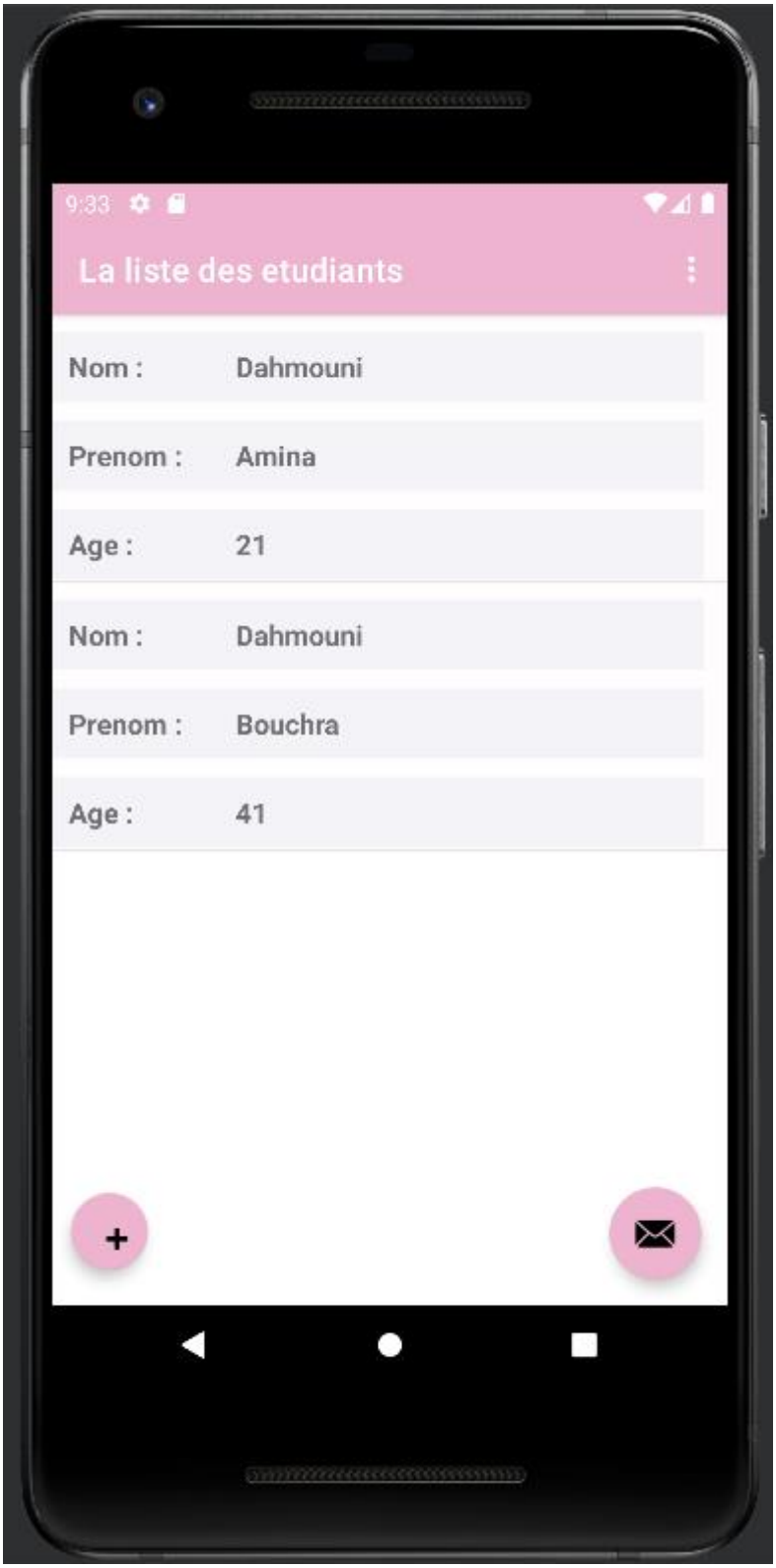
TP 4 : Persistance de données

Développement Mobile et Systèmes Muli-Agents

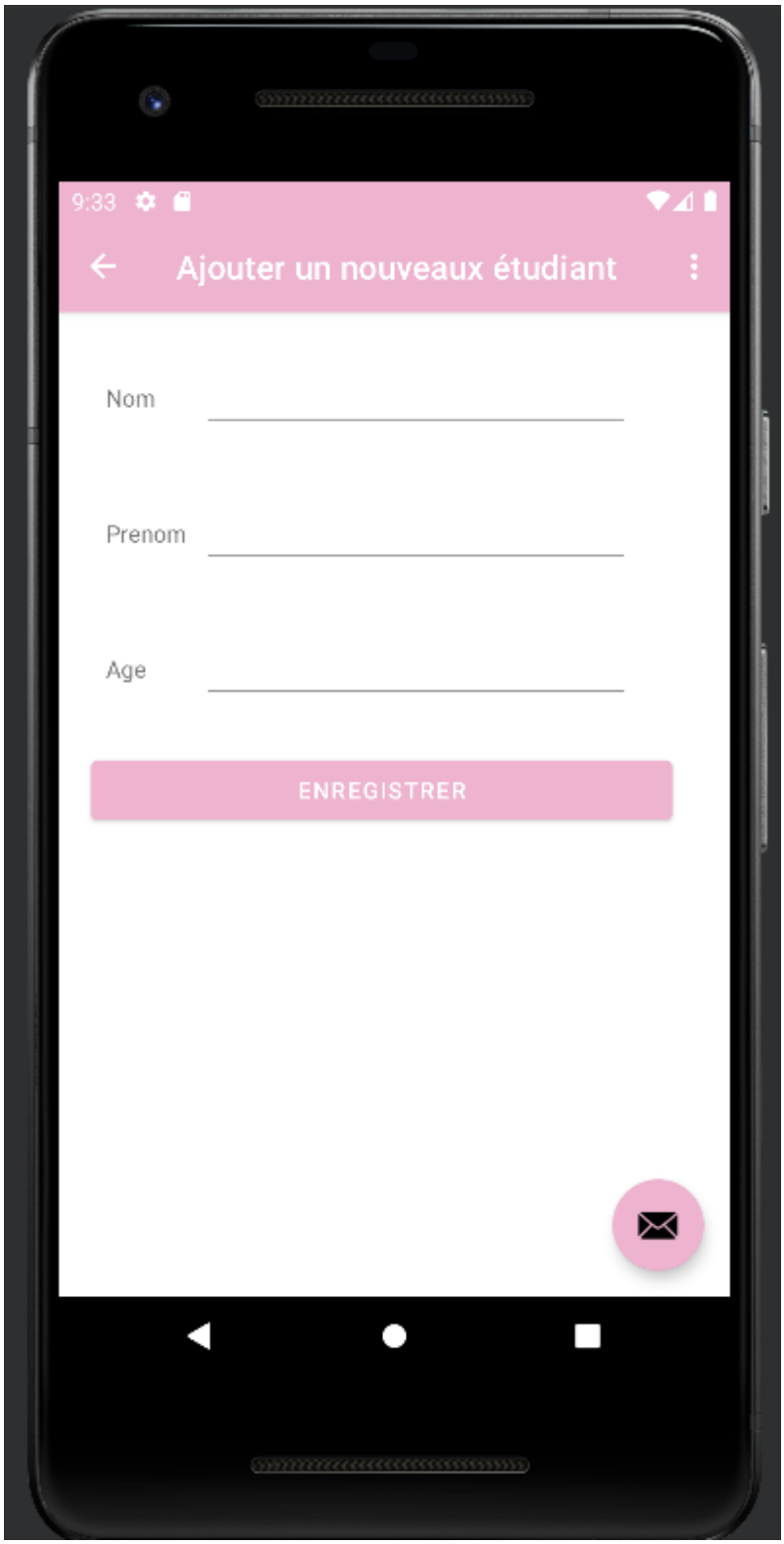
L'Ecole Normale Supérieure de l'Enseignement Technique de Mohammedia (ENSET)

Présentation de l'application :

La liste des étudiants :



Ajouter un nouvel étudiant :



Code d'application :

MainActivity.java

La méthode OnCreate :

```
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);

    binding = ActivityMainBinding.inflate(getLayoutInflater());
    setContentView(binding.getRoot());

    setSupportActionBar(binding.toolbar);

    NavController navController = Navigation.findNavController( activity: this, R.id.nav_host_fragment_content_main);
    appBarConfiguration = new AppBarConfiguration.Builder(navController.getGraph()).build();
    NavigationUI.setupActionBarWithNavController( activity: this, navController, appBarConfiguration);

    binding.fab.setOnClickListener(new View.OnClickListener() {
        ListeUser listeUser=new ListeUser();
```

La méthode Onclick :

```
    @Override
    public void onClick(View view) {
        try {
            FileInputStream fis=openFileInput(FILE_NAME);
            ObjectInputStream ois =new ObjectInputStream(fis);
            listeUser=(ListeUser) ois.readObject();
            System.out.println(listeUser);
        } catch (Exception e) {
            e.printStackTrace();
        }

        ListView listView= findViewById(R.id.listeViews);
```

```
        ListEtudiantAdapter adapter=new ListEtudiantAdapter( context: MainActivity.this,R.layout.
        listView.setAdapter(adapter);
        System.out.println(listeUser);
        names.clear();
        for(int i=0;i<listeUser.getEtudiants().size();i++)
            names.add(listeUser.getEtudiants().get(i));
        listView.setAdapter(adapter);
        adapter.notifyDataSetChanged();

        Snackbar.make(view, text: "Replace with your own action", Snackbar.LENGTH_LONG)
                .setAction( text: "Action", listener: null).show();
    }
});
}
```

First fragment :

```
public class FirstFragment extends Fragment {
    private FragmentFirstBinding binding;
    @Override
    public View onCreateView(
            LayoutInflater inflater, ViewGroup container,
            Bundle savedInstanceState
    ) {
        @SuppressLint("WrongConstant") SharedPreferences sh=getActivity().getSharedPreferences(
        binding = FragmentFirstBinding.inflate(inflater, container,  attachToParent: false);
        return binding.getRoot();

    }
```

```
public void onViewCreated(@NonNull View view, Bundle savedInstanceState) {
    super.onViewCreated(view, savedInstanceState);
    binding.buttonFirst.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            NavHostFragment.findNavController( fragment: FirstFragment.this)
                    .navigate(R.id.action_FirstFragment_to_SecondFragment);
        }
    });
}
```

Second fragment :

```
public class SecondFragment extends Fragment {
    private static final String FILE_NAME="myFile.txt";
    private FragmentSecondBinding binding;
    @Override
    public View onCreateView(
            LayoutInflater inflater, ViewGroup container,
            Bundle savedInstanceState
    ) {

        binding = FragmentSecondBinding.inflate(inflater, container,  attachToParent: false);
        return binding.getRoot();

    }
```

```
    public void onViewCreated(@NonNull View view, Bundle savedInstanceState) {
        super.onViewCreated(view, savedInstanceState);
        EditText editTextNom=view.findViewById(R.id.editTextNom);
        EditText editTextPrenom=view.findViewById(R.id.editTextPrenom);
        EditText editTextAge=view.findViewById(R.id.editTextAge);
        System.out.println(editTextNom.getText().toString());
        binding.buttonSave.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                ListeUser listeUser = new ListeUser();
                try {
                    FileInputStream fis = getActivity().openFileInput(FILE_NAME);
                    ObjectInputStream ois = new ObjectInputStream(fis);
                    listeUser = (ListeUser) ois.readObject();
                } catch (Exception e) {
                    e.printStackTrace();
                }
```

```
        try {
            Etudiant etudiant = new Etudiant();
            FileOutputStream fos = getActivity().openFileOutput(FILE_NAME, Context.MODE_PRIVATE);
            ObjectOutputStream pw = new ObjectOutputStream(fos);
            etudiant.setNom(editTextNom.getText().toString());
            etudiant.setPrenom(editTextPrenom.getText().toString());
            etudiant.setAge(Integer.parseInt(editTextAge.getText().toString()));
            listeUser.getEtudiants().add(etudiant);
            pw.writeObject(listeUser);
            pw.close();

        } catch (Exception e) {
            e.printStackTrace();
        }
        Toast.makeText(getActivity().getApplicationContext(), text: "Les données ont été enregistrées !!",
        NavHostFragment.findNavController( fragment: SecondFragment.this)
                .navigate(R.id.action_SecondFragment_to_FirstFragment);
    }
});
```

Classe Etudiant :

```java
package ma.enset.tp4.model;
import java.io.Serializable;
public class Etudiant implements Serializable {
    private  int age;
    private  String Nom;
    private  String Prenom;
    public Etudiant() {

    }
    public int getAge() { return age; }

    public void setAge(int age) { this.age = age; }

    public String getNom() { return Nom; }

    public void setNom(String nom) { Nom = nom; }

    public String getPrenom() { return Prenom; }

    public void setPrenom(String prenom) { Prenom = prenom; }
```

Adaptateur de la liste des étudiants :

```java
package ma.enset.tp4.model;
import ...
public class ListEtudiantAdapter extends ArrayAdapter<Etudiant> {
    private int resource;
    public ListEtudiantAdapter(@NonNull Context context, int resource, @NonNull List<Etudiant> etudiants)
        super(context, resource, etudiants);
        this.resource=resource;
    }
    @NonNull
    @Override
    public View getView(int position, @Nullable View convertView, @NonNull ViewGroup parent) {
        View listItemView = convertView;
        if (listItemView == null) {
            listItemView = LayoutInflater.from(getContext()).inflate(resource, parent, attachToRoot: false);
        }
        TextView textViewLogin = listItemView.findViewById(R.id.textViewNme);
        TextView textViewPrenom = listItemView.findViewById(R.id.textViewPrnme);
        TextView textViewAge = listItemView.findViewById(R.id.textViewAge);

        textViewLogin.setText(getItem(position).getNom());
        textViewPrenom.setText(getItem(position).getPrenom());
        textViewAge.setText((String.valueOf(getItem(position).getAge())));
        return listItemView;
}}
```