



Eduvos Tyger Valley IT Showcase: 29 November

universe

An All-In-One University Student Application

GROUP MEMBERS:
Yatish Prag (Group Leader)
Zia van Dyk
Werner Goosen (Back-end & Database)

Team Members



Yatish Prag

BSc IT: Software Eng.

- ❖ Project Manager
- ❖ Front-End

About Me:

Open for any available positions. I am flexible and always looking to learn and expand my knowledge.

I am passionate about technology and teamwork, I'm excited to apply my skills to create impactful solutions.

I enjoyed being SRC President and Project Manager for UniVerse in 2024 and would love to explore similar jobs.



Scan for CV



Zia van Dyk

BSc IT: Software Eng.

- ❖ Quality Assurance
- ❖ Front-End

About Me:

Open for any job roles currently. Excited to learn and take on new challenges.

Enjoyed front-end, testing, quality assurance during studies. Interested in branching out to databases and data analysis.



Scan for CV

Industries: EduTech,
FinTech, Medical/Mental
Health Tech

Why UniVerse?

Being a university student involves **juggling tasks like attending classes, managing assessments, and accessing multiple platforms**. The UniVerse app **simplifies this by integrating key functions into one user-friendly platform**, enhancing efficiency and improving the student experience.

- **Inspiration**

UniVerse was inspired by the challenges students face with scattered systems, aiming to create a centralized hub to save time and allow students to be as efficient as possible.

- **Current State of University Apps**

Most university apps are outdated, limited in features, and lack integration, forcing students to rely on multiple tools, apps, and systems that disrupt workflow.

- **Our Solution**

UniVerse combines essential features—timetables, course management, notifications, calendar, and campus maps—into a single app with a modern design, customization options, and so much more. **It's the ultimate tool for simplifying university life.**

moodle

An All-In-One University
Student Application



3:39

Eduvos Mobile LMS

Filter my courses

In progress

ACACA1-11

Probably Human Resources for First Year students (TEST COURSE)

Test Course for groups

My courses

AIGÖ

Mo. 11. Dez. 12. Mi. 13. Do. 14. Fr. 15.

8:00 - 8:45	10C,10D SP SP-1,SP-4 CiMa	08C,08D SP SP-1,SP-4 BoDa	05C KU KU-2
8:50 - 9:35	08A,08B SP SP-1,SP-2 IoTo	V8	05C KU KU-1
9:45 - 10:30	09A,09B SP SP-1,SP-2 IoTo	08A,08B SP SP-1,SP-2 CiMa	10C,10D KU KU-2
10:40 - 11:25	SP-1 IoTo	IoTo	KU
11:30 - 11:50	07C, 08B, 07B	08C,08D	08C,08D

13:10

2024 November

S	M	T	W	T	F	S
				1	2	
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Study for ITSEA exam 10:00 12:00

Go shopping for Jennie Bday 13:00 14:00

Karaoke with Jennie! 18:00 20:00



Technologies



IDE: Android Studio



Front-End: XML



Back-End: Java



Firebase

Database:
Firebase (incl.
Firestore)

App demonstration



20:14

97%

UniVerse



App
Demonstration



App Breakdown



Create New Account

Lily

van der Merwe

lilyvdm@gmail.com

2002/03/15

.....

.....

Sign Up

Have an account? [Click here to login](#)

Choose a language:

Afrikaans

isiZulu

English

App Logo

Personal Details

Register button

Navigation to Login Page

Registration Page

- First page that users see
- Need personal details – name, surname, email, DOB, password
- Notification for success or failure after choosing password
- Authentication messages for validation of password
- Easy, quick navigation between registration and login pages
- Translation options



Registration Page



- INPUT EditTexts

```
<com.google.android.material.textfield.TextInputEditText  
    android:id="@+id/email"  
    android:layout_width="0dp"  
    android:layout_height="48dp"  
    android:layout_marginHorizontal="32dp"  
    android:layout_marginTop="160dp"  
    android:hint="E-mail"  
    android:inputType="textEmailAddress"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintTop_toBottomOf="@+id/create_new_account_text" />  
  
<EditText  
    android:id="@+id/date"  
    android:layout_width="0dp"  
    android:layout_height="48dp"  
    android:layout_marginHorizontal="32dp"  
    android:layout_marginTop="20dp"  
    android:hint="Date of Birth (e.g. 2001/12/04)"  
    android:inputType="date"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintTop_toBottomOf="@+id/email" />  
  
<com.google.android.material.textfield.TextInputEditText  
    android:id="@+id/password"  
    android:layout_width="0dp"  
    android:layout_height="48dp"  
    android:layout_marginHorizontal="32dp"  
    android:layout_marginTop="88dp"  
    android:hint="Password "  
    android:inputType="textPassword"
```

Specialised
EditText

NAVIGATION – linked in TextView

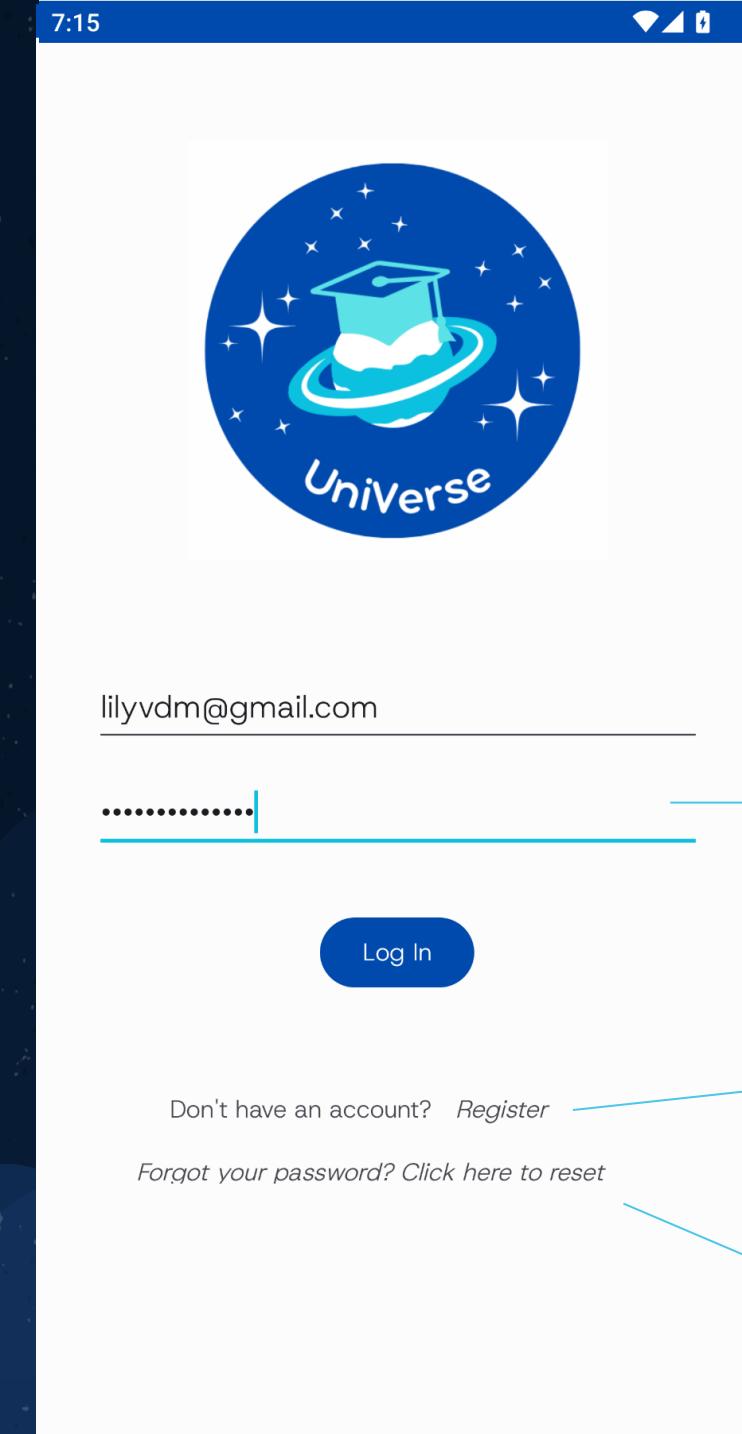
```
<TextView  
    android:id="@+id/login_navigate"  
    android:layout_width="172dp"  
    android:layout_height="22dp"  
    android:layout_marginStart="8dp"  
    android:layout_marginTop="36dp"  
    android:text="Click here to login"  
    android:textStyle="italic"  
    app:layout_constraintStart_toEndOf="@+id/have_an_account"  
    app:layout_constraintTop_toBottomOf="@+id/register_button" />  
  
<TextView  
    android:id="@+id/have_an_account"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_marginStart="84dp"  
    android:layout_marginTop="36dp"  
    android:text="Have an account?"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintTop_toBottomOf="@+id/register_button" />
```

Login page

- **Secure Login:** Supports email/password and Google Sign-In via Firebase.
- **Error Handling:** Incorrect logins prompt error messages.

Multiple Login Options: Users can log in via email/password or Google Sign-In.

- **Real-Time Validation:** Firebase verifies credentials instantly for secure access.
- **Clear Error Messages:** Guides users to correct login details if entry fails.



Forgot
password
Button

Login
Details

Registration
Navigation
Button

Login page - code

```
22      <!-- Email TextInputEditText -->
23      <com.google.android.material.textfield.TextInputEditText
24          android:id="@+id/editTextTextEmailAddress"
25          android:layout_width="0dp"
26          android:layout_height="48dp"
27          android:hint="Email"
28          android:inputType="textEmailAddress"
29          app:layout_constraintTop_toBottomOf="@+id/imageView"
30          app:layout_constraintStart_toStartOf="parent"
31          app:layout_constraintEnd_toEndOf="parent"
32          android:layout_marginHorizontal="32dp"
33          android:layout_marginTop="16dp" />
34
35      <!-- Password TextInputEditText -->
36      <com.google.android.material.textfield.TextInputEditText
37          android:id="@+id/editTextTextPassword"
38          android:layout_width="0dp"
39          android:layout_height="48dp"
40          android:hint="Password"
41          android:inputType="textPassword"
42          app:layout_constraintTop_toBottomOf="@+id/editTextTextEmailAddress"
43          app:layout_constraintStart_toStartOf="parent"
44          app:layout_constraintEnd_toEndOf="parent"
45          android:layout_marginHorizontal="32dp"
46          android:layout_marginTop="8dp" />
47
48      <!-- Login Button -->
49      <Button
50          android:id="@+id/button"
51          android:layout_width="wrap_content"
52          android:layout_height="wrap_content"
53          android:text="Log In"
54          app:layout_constraintTop_toBottomOf="@+id/editTextTextPassword"
55          app:layout_constraintStart_toStartOf="parent"
56          app:layout_constraintEnd_toEndOf="parent"
57          android:layout_marginTop="16dp" />
58
```

→ Email TextInputEditText

→ Password TextInputEditText

→ Login Button

Firebase Authentication -

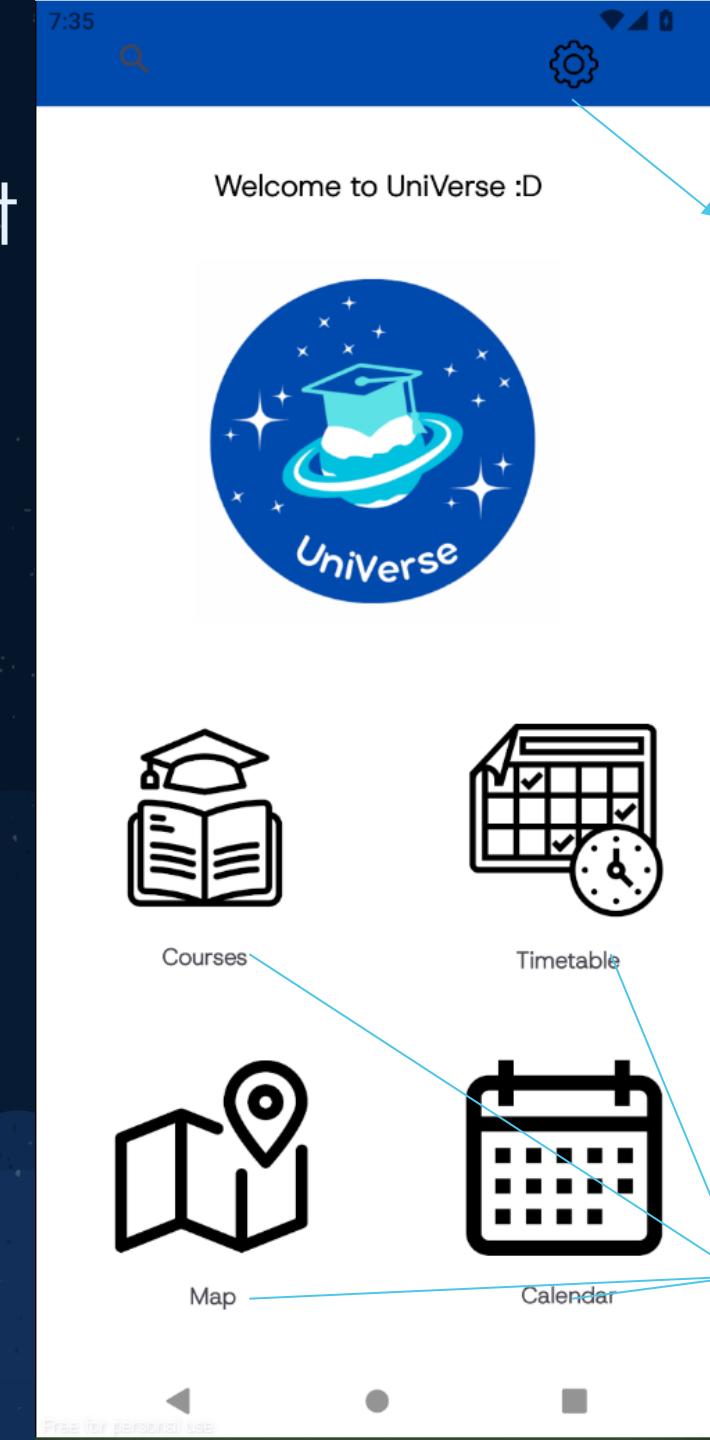
ensures secure and reliable login using email/password or Google Sign-In.

Error handling - provides feedback if login details are incorrect, guiding users to re-enter information.

Successful login - takes users directly to the Home Page, giving immediate access to essential app features.

Home - layout

- **Central Hub:** Provides easy access to core features like Courses and Timetable.
- **Intuitive Navigation:** Image Buttons allow quick access to different sections.
- **Edge-to-Edge UI:** Maximizes screen space for a modern, immersive experience.
- **Efficient Layout:** Simplifies user flow with a clean, accessible interface.



Settings Page
Button

Navigation
towards
core
features



Home page - code

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res-auto"
3     xmlns:app="http://schemas.android.com/apk/res-auto"
4     xmlns:tools="http://schemas.android.com/tools"
5     android:layout_width="match_parent"
6     android:layout_height="match_parent"
7     android:background="#FFFFFF">
8
9     <!-- Toolbar with Embedded SearchView -->
10    <androidx.appcompat.widget.Toolbar
11        android:id="@+id/toolbar2"
12        android:layout_width="0dp"
13        android:layout_height="wrap_content"
14        android:background="?attr/colorPrimary"
15        android:minHeight="?attr/actionBarSize"
16        android:theme="?attr/actionBarTheme"
17        app:layout_constraintEnd_toEndOf="parent"
18        app:layout_constraintStart_toStartOf="parent"
19        app:layout_constraintTop_toTopOf="parent">
20
21        <!-- Embedded SearchView -->
22        <androidx.appcompat.widget.SearchView
23            android:id="@+id/searchView"
24            android:layout_width="match_parent"
25            android:layout_height="wrap_content"
26            android:queryHint="Search courses" />
27    </androidx.appcompat.widget.Toolbar>
28
29     <!-- Welcome TextView -->
30     <TextView
31         android:id="@+id/textView"
32         android:layout_width="wrap_content"
33         android:layout_height="wrap_content"
34         android:layout_marginStart="16dp"
35         android:layout_marginTop="16dp"
36         android:text="Welcome to UniVerse"
37         android:textColor="#000000"
38         android:textSize="18sp"
39         app:layout_constraintStart_toStartOf="parent"
40         app:layout_constraintTop_toBottomOf="@+id/toolbar2" />
41
42     <!-- Main Image (e.g., Graduation Cap) -->
43     <ImageView
44         android:id="@+id/imageView"
```

→ **Toolbar with Embedded SearchView**

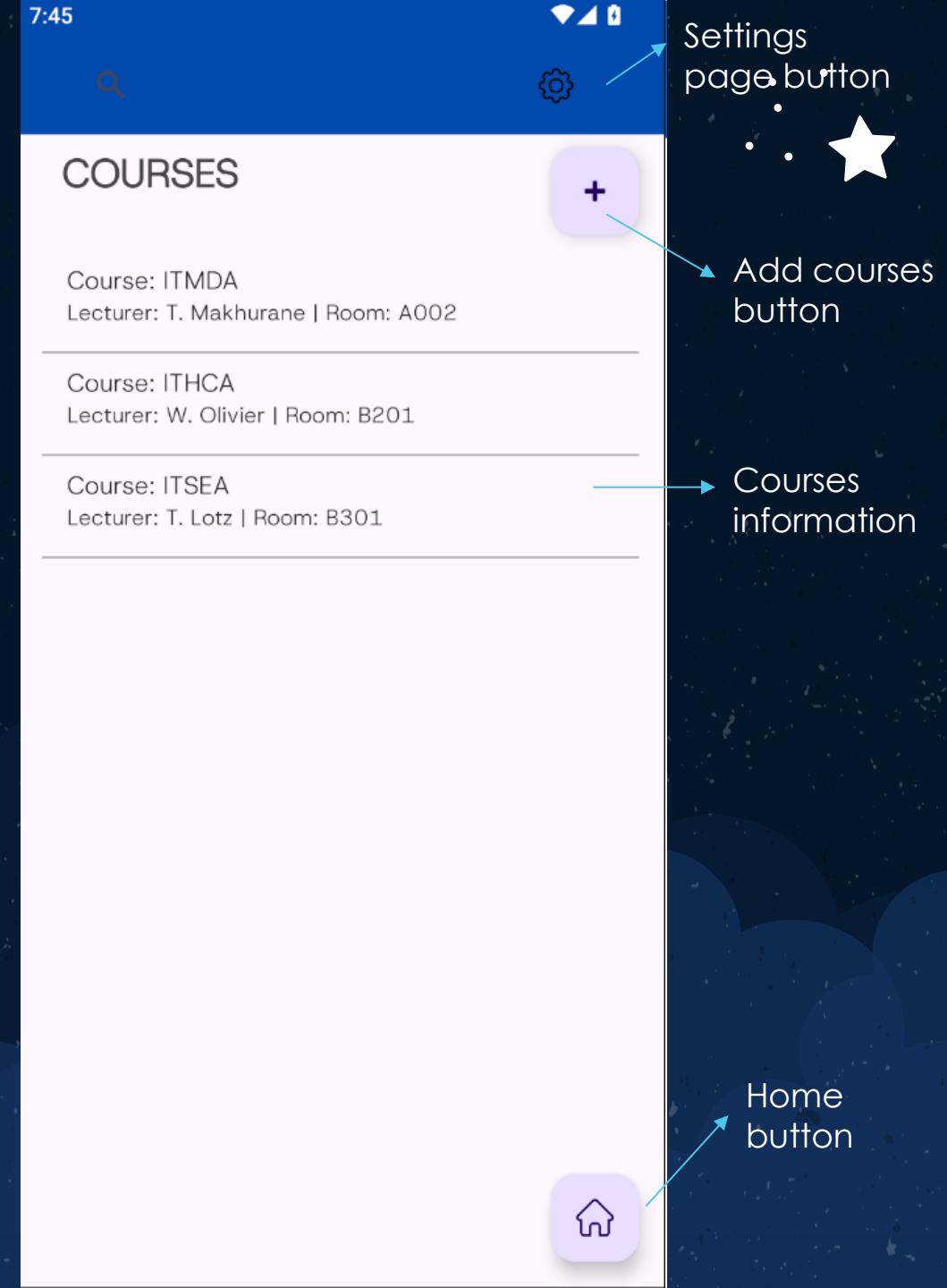
→ **Embedded SearchView**

→ **Welcome TextView**

- **Quick Search:** Embedded SearchView for easy course lookup – also on four main pages
- **Streamlined UI:** Modern toolbar design with SearchView.
- **Welcome Text:** Personalised greeting for users.

Courses - layout

- Space where all the student's courses are displayed
- Example: Course, Lecturer, Room
- Quick view of all relevant and frequently referenced information



Add Courses

- Page to add My Courses information
- Example: ITMDA, Mr Makhurane, B402
- Easy and simple flow to add and save information
- Populated into database and displayed on My Courses page

Add New Course

→ Add course name

→ Add lecturer name

→ Add room number

CancelSave

→ Save information

→ Cancel information addition



Courses – code snippet

```
11  <!-- Toolbar with embedded SearchView -->
12  <androidx.appcompat.widget.Toolbar
13      android:id="@+id/toolbar"
14      android:layout_width="0dp"
15      android:layout_height="wrap_content"
16      android:background="?attr/colorPrimary"
17      android:minHeight="?attr/actionBarSize"
18      android:theme="?attr actionBarTheme"
19      app:layout_constraintTop_toTopOf="parent"
20      app:layout_constraintStart_toStartOf="parent"
21      app:layout_constraintEnd_toEndOf="parent">
22
23      <!-- Embedded SearchView -->
24      <androidx.appcompat.widget.SearchView
25          android:id="@+id/searchView"
26          android:layout_width="match_parent"
27          android:layout_height="wrap_content"
28          android:queryHint="Search courses" />
29  </androidx.appcompat.widget.Toolbar>
30
31  <!-- Title TextView -->
32  <TextView
33      android:id="@+id/textViewCourses"
34      android:layout_width="wrap_content"
35      android:layout_height="wrap_content"
36      android:text="Courses"
37      android:textSize="25sp"
38      android:textStyle="bold"
39      app:layout_constraintTop_toBottomOf="@+id/toolbar"
40      app:layout_constraintStart_toStartOf="parent"
41      android:layout_marginStart="16dp"
42      android:layout_marginTop="16dp" />
43
44  <!-- Floating Action Button (Add Course) -->
```

→ Tool bar and
search view

List view for
courses info

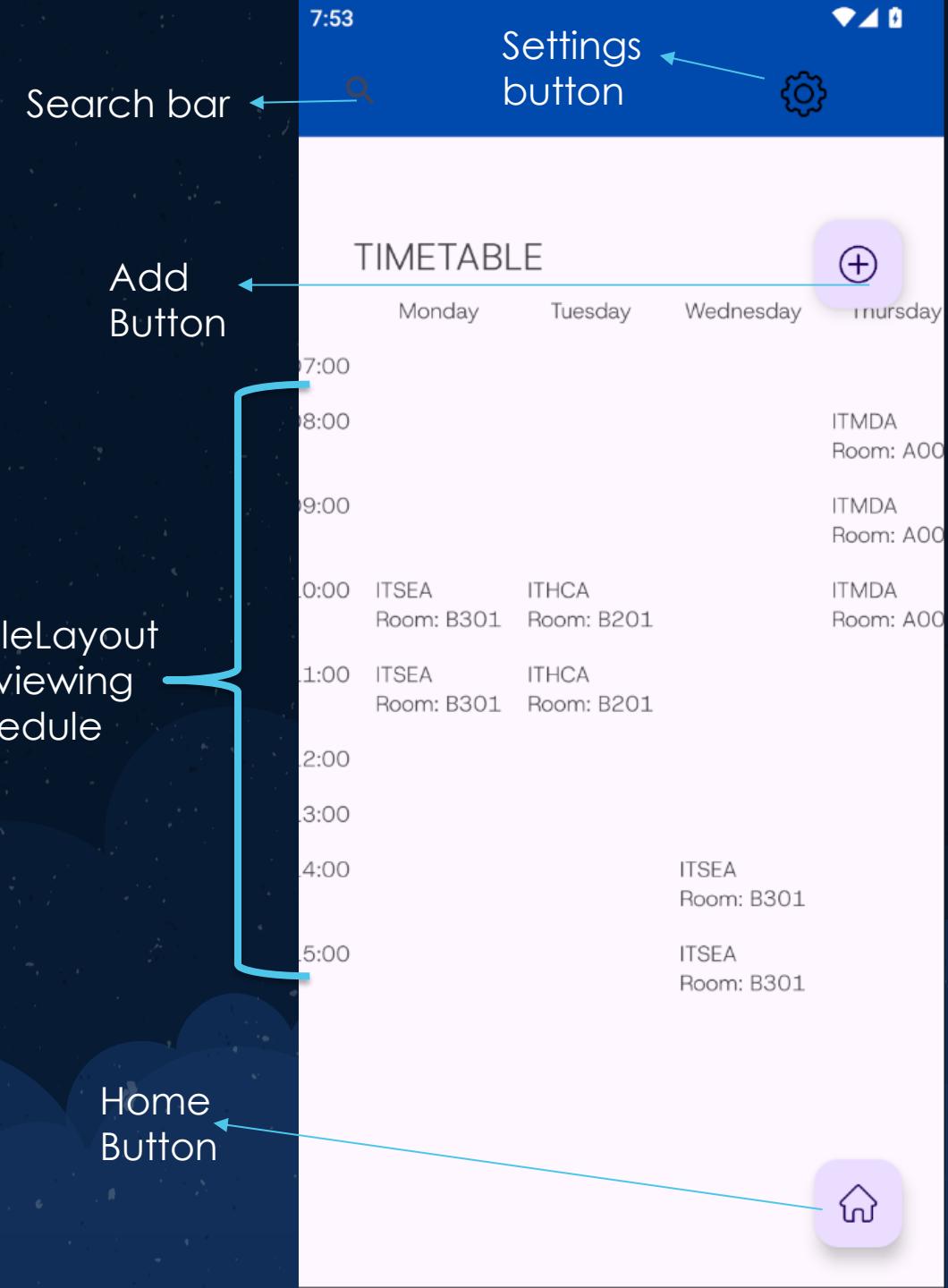
→ Text view:
Courses

```
56      <!-- listview for database info -->
57
58      <ListView
59          android:id="@+id/courses_list_view"
60          android:layout_width="match_parent"
61          android:layout_height="wrap_content"
62          android:layout_gravity="center_vertical"
63          android:layout_marginTop="140dp"
64          android:divider="@android:color/darker_gray"
65          android:dividerHeight="1dp"
66          android:padding="16dp"
67          app:layout_constraintTop_toTopOf="@+id/toolbar"
68          tools:layout_editor_absoluteX="0dp" />
69
70
71
72
73      <com.google.android.material.floatingactionbutton.FloatingActionButton
74          android:id="@+id/button"
75          android:layout_width="wrap_content"
76          android:layout_height="wrap_content"
77          android:layout_margin="16dp"
78          android:contentDescription="activity my courses"
79          app:srcCompat="@drawable/home"
80          app:layout_constraintBottom_toBottomOf="parent"
81          app:layout_constraintEnd_toEndOf="parent" />
82
```

Timetable - layout

Schedule management

- Scrollable for ease-of-use
- Displays course name and room number
- Users create it themselves - improved adaptability and accuracy
- Avoid student portals, MyLMS, or another external platform loading and syncing



Add Timetable Entry

- Page to add class schedule entries
- Easy and simple flow to add and save timetable information
- Populated into database and displayed on Timetable page

Add Timetable Entry

ITHCA

friday

B201

12:00

15:00

Cancel

Save

→ Add course name

→ Add course day

→ Add course location

→ Add course times

→ Save information

→ Cancel information addition

TableLayout with Nested Scroll Bars

```
2   <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android" android:layout_width="match_parent" android:layout_height="match_parent">
76  <LinearLayout
84      app:layout_constraintStart_toStartOf="parent"
85      app:layout_constraintTop_toTopOf="parent">
86  1 - (Vertical) ScrollView
87      <ScrollView
88          android:layout_width="match_parent"
89          android:layout_height="match_parent">
90
91      <LinearLayout
92          android:layout_width="match_parent"
93          android:layout_height="wrap_content"
94          android:orientation="vertical" >
95
96  2 - Horizontal ScrollView
97      <HorizontalScrollView
98          android:layout_width="match_parent"
99          android:layout_height="match_parent">
100
101     <LinearLayout
102         android:layout_width="wrap_content"
103         android:layout_height="match_parent"
104         android:orientation="vertical" >
105
106  3 - TableLayout
107      <TableLayout
108          android:layout_width="match_parent"
109          android:layout_height="wrap_content"
110          android:scrollbars="horizontal|vertical"
111          android:stretchColumns="1,2,3,4,5"
112          android:visibility="visible">
```

Timetable – code snippet

Day of the Week Columns

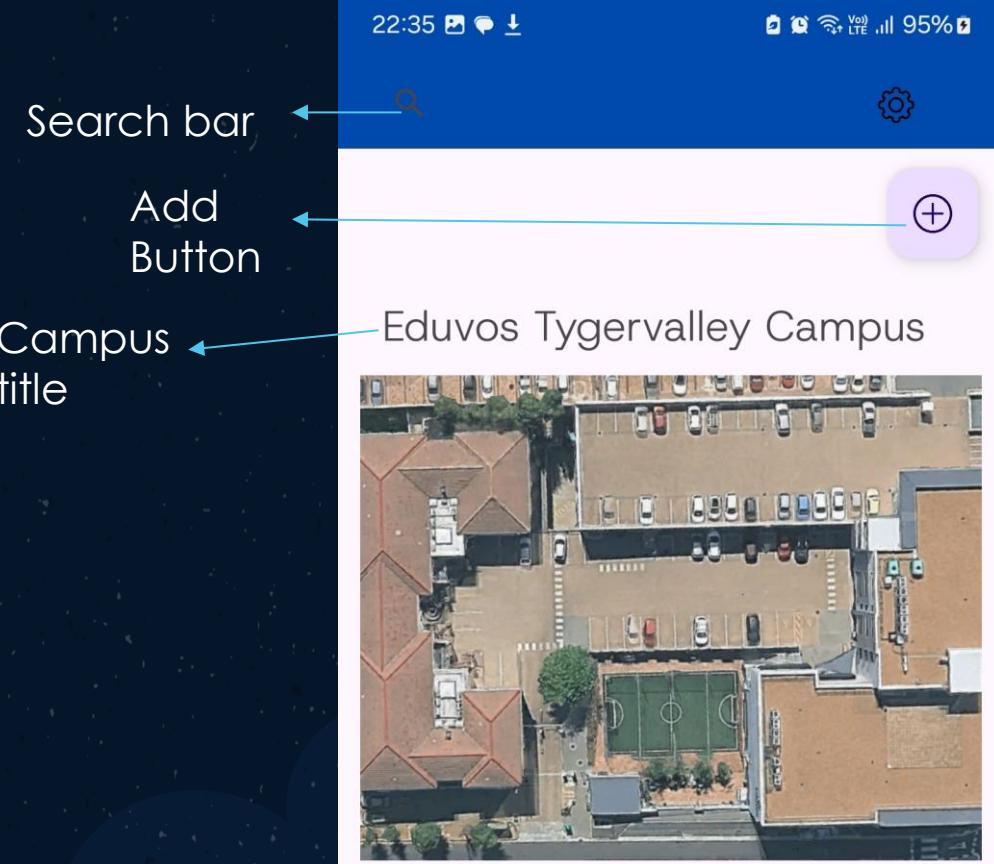
```
<TableLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
    <TableRow>
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:padding="8dp"
            android:text="" />
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:gravity="center"
            android:padding="8dp"
            android:text="Monday" />
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:gravity="center"
            android:padding="8dp"
            android:text="Tuesday" />
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:gravity="center"
            android:padding="8dp"
            android:text="Wednesday" />
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:gravity="center"
            android:padding="8dp"
            android:text="Thursday" />
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:gravity="center"
            android:padding="8dp"
            android:text="Friday" />
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:gravity="center"
            android:padding="8dp"
            android:text="Saturday" />
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:gravity="center"
            android:padding="8dp"
            android:text="Sunday" />
    </TableRow>
```

Timeslot Rows

```
<TableLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
    <TableRow>
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:gravity="center"
            android:padding="8dp"
            android:text="07:00" />
        <!-- Empty cells for each day of the week -->
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:padding="8dp" />
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:padding="8dp" />
    </TableRow>
```

Map - layout

- Space to display campus map and relevant classes and building information
- Quick and easy to navigate to show information immediately
- Helps to consolidate useful information within the UniVerse app



Course	Room	Building
ITSEA	B301	B
ITHCA	B201	B
ITMDA	A001	A

Map table

Home Button

• * Add Map Entry

- Page to add My Map entries
- Easy and simple flow to add and save map information
- Populated into database and displayed on My Map page

Add Map Entry

Course name
ITBEA

Course location
B206

Building location
B

Upload map button

+ Add Map Image

Save information

Cancel information addition

Cancel

Save

Map – code snippet

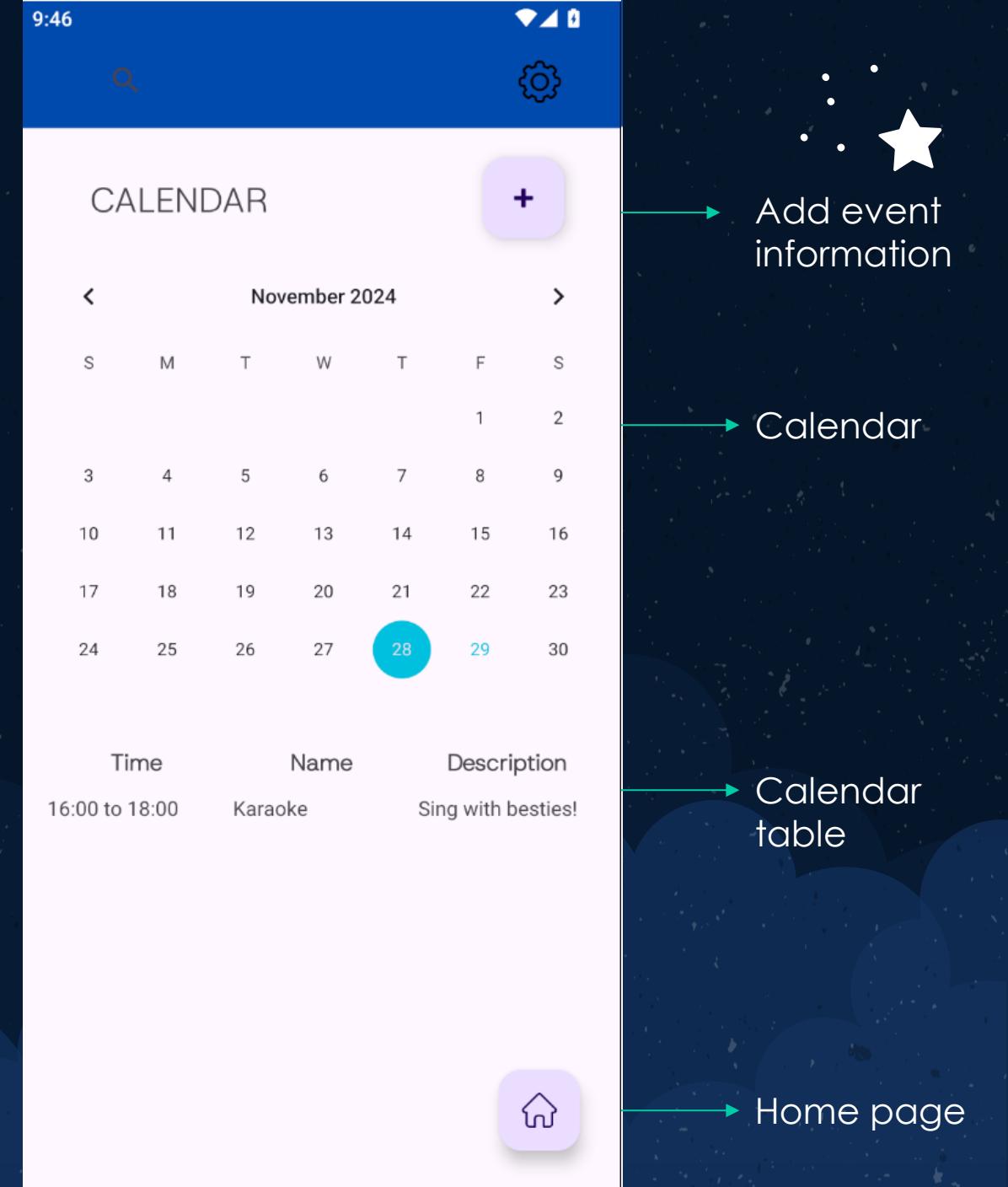
```
<ImageView  
    android:id="@+id/imageView2"  
    android:layout_width="384dp"  
    android:layout_height="300dp"  
    android:layout_marginTop="140dp"  
    android:contentDescription="TODO"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintTop_toBottomOf="@+id/toolbar"  
    android:scaleType="centerCrop"  
    android:adjustViewBounds="true" />
```

Part of the map table code

```
<ScrollView  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    app:layout_constraintBottom_toBottomOf="parent"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintTop_toBottomOf="@+id/imageView2">  
  
<TableLayout  
    android:id="@+id/tableLayout"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:stretchColumns="*"  
    android:padding="16dp">  
  
<!-- Header Row -->  
<TableRow>  
    <TextView  
        android:layout_width="0dp"  
        android:layout_height="wrap_content"  
        android:layout_weight="1"  
        android:padding="8dp"  
        android:text="Course"  
        android:textStyle="bold" />
```

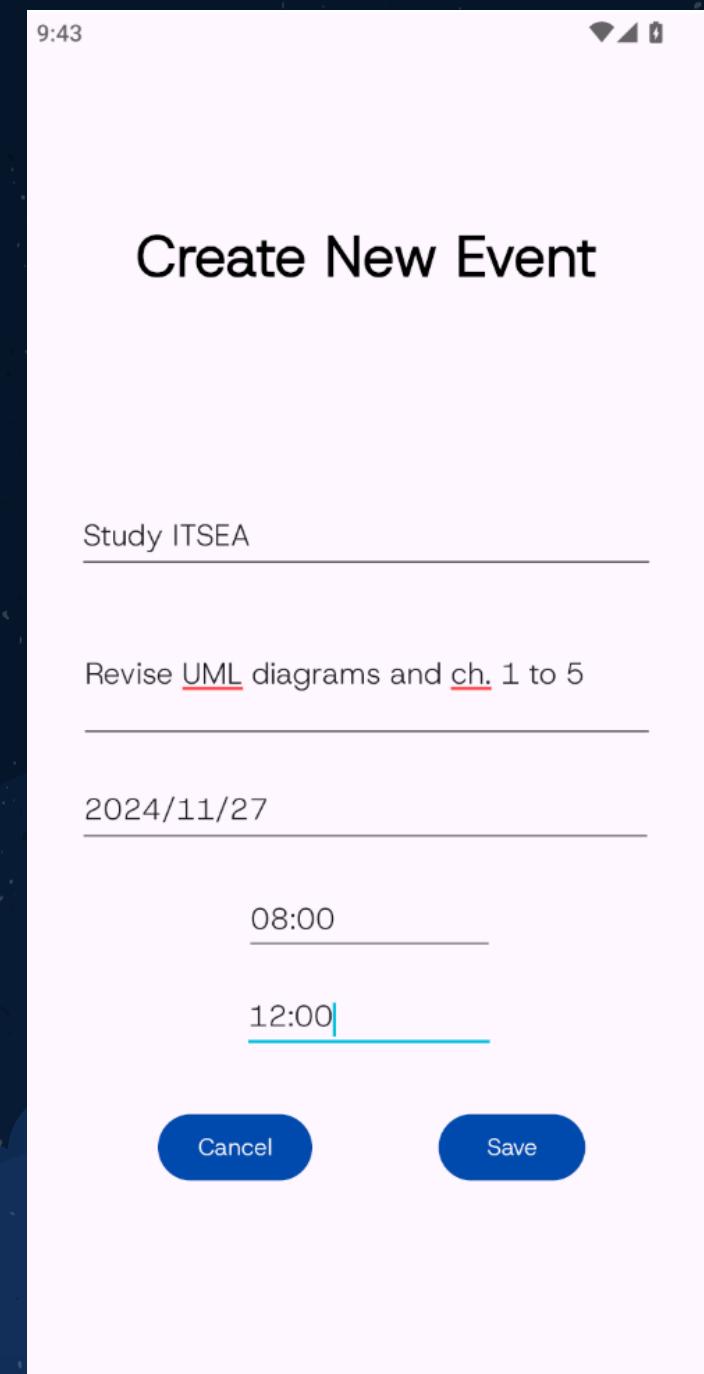
Calendar - layout

- Page to access and manage student calendar
- Add and manage academic and social events in one place
- Helps to consolidate useful functionalities within the UniVerse app



Add calendar entry

- Page to add My Timetable entries
- Easy and simple flow to add and save timetable information
- Populated into database and displayed on My Timetable page



My Calendar - code

1

2

<CalendarView

```
    android:id="@+id/calendarView"
    android:layout_width="416dp"
    android:layout_height="321dp"
    android:layout_marginBottom="25dp"
    android:minDate="01/01/1990"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.0"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.022">
```

CalendarView to show
interactable calendar



3

<ScrollView

```
    android:id="@+id/scrollView"
    android:layout_width="413dp"
    android:layout_height="320dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.0"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/calendarView"
    app:layout_constraintVertical_bias="0.022">
```

ScrollView to see all
table entries

4

<TableRow

```
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
    Part of the table code
    for calendar table
```

<TextView

```
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    android:gravity="center"
    android:padding="8dp"
    android:text="Time"
    android:textSize="16sp"
    android:textStyle="bold" />
```

<TextView

```
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    android:gravity="center"
    android:padding="8dp"
    android:text="Name"
    android:textSize="16sp"
    android:textStyle="bold" />
```

Settings

- Settings page to access relevant tools
- Delete account if user wishes to do so
- Change language to English, Afrikaans, or isiZulu

Back button

Account

Delete Account:

Delete account information

Change app language

Language

Buttons to translate application

```
<Button  
    android:id="@+id/btn_Eng"  
    android:layout_width="108dp"  
    android:layout_height="50dp"  
    android:layout_marginTop="27dp"  
    android:text="English"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintHorizontal_bias="0.24"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintTop_toBottomOf="@+id/theme_label" />
```

```
<Button  
    android:id="@+id/btn_Afr"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_marginTop="12dp"  
    android:text="Afrikaans"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintHorizontal_bias="0.241"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintTop_toBottomOf="@+id/btn_Eng" />
```

```
<Button  
    android:id="@+id/btn_Zulu"  
    android:layout_width="109dp"  
    android:layout_height="46dp"  
    android:text="isiZulu"  
    app:layout_constraintBottom_toBottomOf="parent"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintHorizontal_bias="0.241"  
    app:layout_constraintStart_toStartOf="parent"
```

Settings

Hard-coded language buttons – original language names for native speakers

```
<EditText  
    android:id="@+id/delete_email"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_marginTop="8dp"  
    android:ems="10"  
    android:hint="E-mail"  
    android:inputType="textEmailAddress"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintHorizontal_bias="0.239"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintTop_toBottomOf="@+id/delete_account" />
```

```
<TextView  
    android:id="@+id/delete_account"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_marginStart="48dp"  
    android:layout_marginTop="16dp"  
    android:text="Delete Account:"  
    android:textSize="24sp"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintTop_toBottomOf="@+id/account_label" />
```

```
<Button  
    android:id="@+id/delete_button"  
    android:layout_width="95dp"  
    android:layout_height="45dp"  
    android:text="Delete"  
    app:layout_constraintBottom_toBottomOf="parent"  
    app:layout_constraintEnd_toEndOf="parent"
```

7:24



Siyakwemukela ku-UniVerse! :D



Izifundo



Uhlelo Lwesikhathi



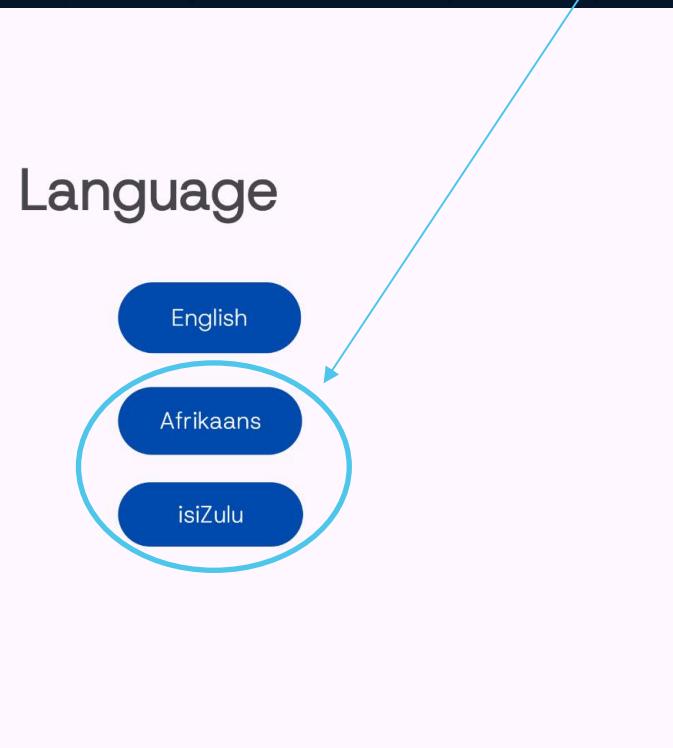
Imephu



Ikhalenda

Translation Options – Afrikaans & Zulu

(More languages to come!)



7:27



Dala I-akhawunti Entsha

Igama

Isibongo

I-imeyili

Usuku Lokuzalwa (yyyy/mm/dd)

Iphasiwedi

Qinisekisa Iphasiwedi

Bhalisa

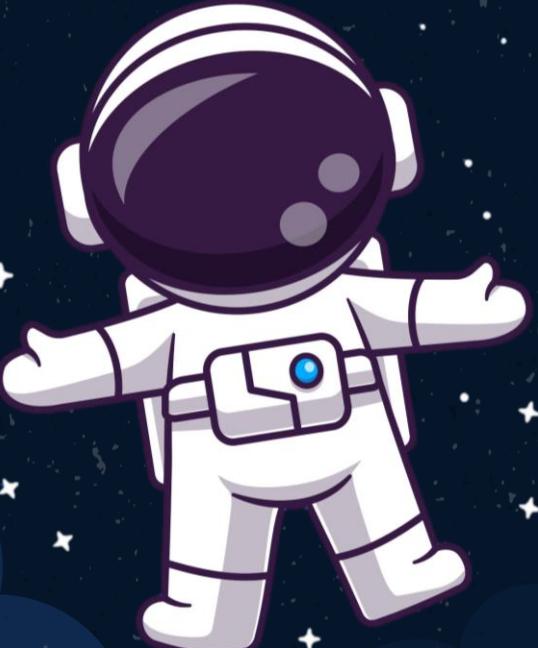
Unayo i-akhawunti? Ngena ngemvume lapha

Khetha ulimi:

Afrikaans

isiZulu

English



Thank you!

Any questions?

Yatish



CV Links:

Zia

