



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.

Industries: EduTech, FinTech, Medical/Mental Health Tech



Scan for CV

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**

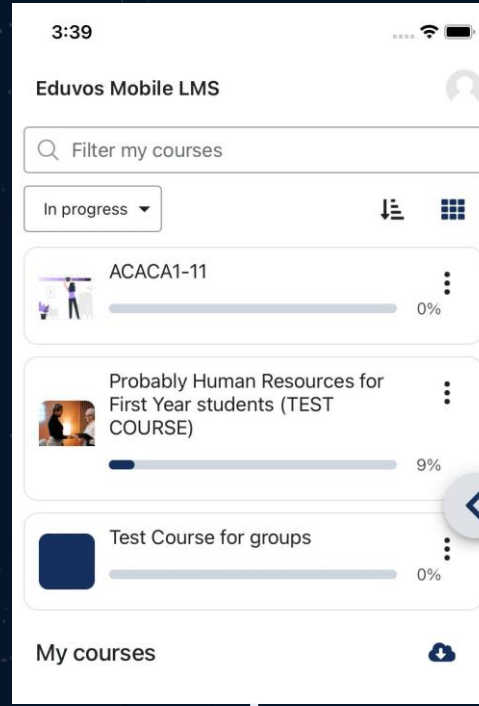
UniVerse was inspired by the challenges students face with scattered systems, aiming to create a centralized hub to save time and allow students to be as efficient as possible.

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Most university apps are outdated, limited in features, and lack integration, forcing students to rely on multiple tools, apps, and systems that disrupt workflow.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



Technologies



IDE: Android Studio



Front-End: XML



Back-End: Java



Firebase

Database:
Firebase (incl.
Firestore)



App Demonstration



UniVerse



App
Demonstration



App Breakdown





App Logo

Create New Account

Lily

van der Merwe

lilyvdm@gmail.com

2002/03/15

.....

.....

Sign Up

Personal
Details

Register button

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

Choose a language:

Afrikaans

isiZulu

English

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

- INPUT EditText

```
<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**

Registration Page

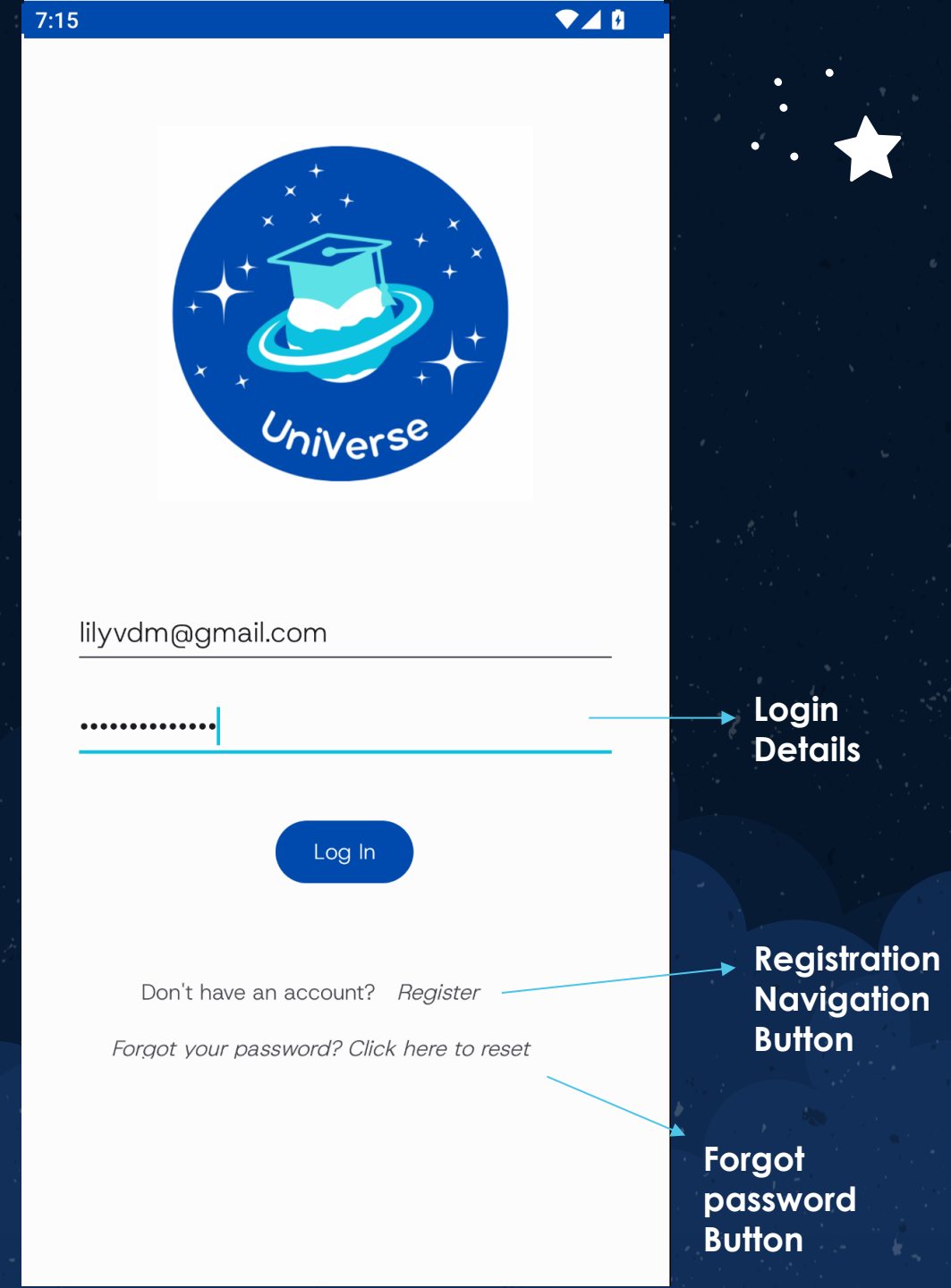
NAVIGATION – linked in TextView

```
<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.



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" />
```

→ Email TextInputEditText

```
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" />
```

→ Password TextInputEditText

```
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
```

→ Login Button

Firestore Authentication - ★

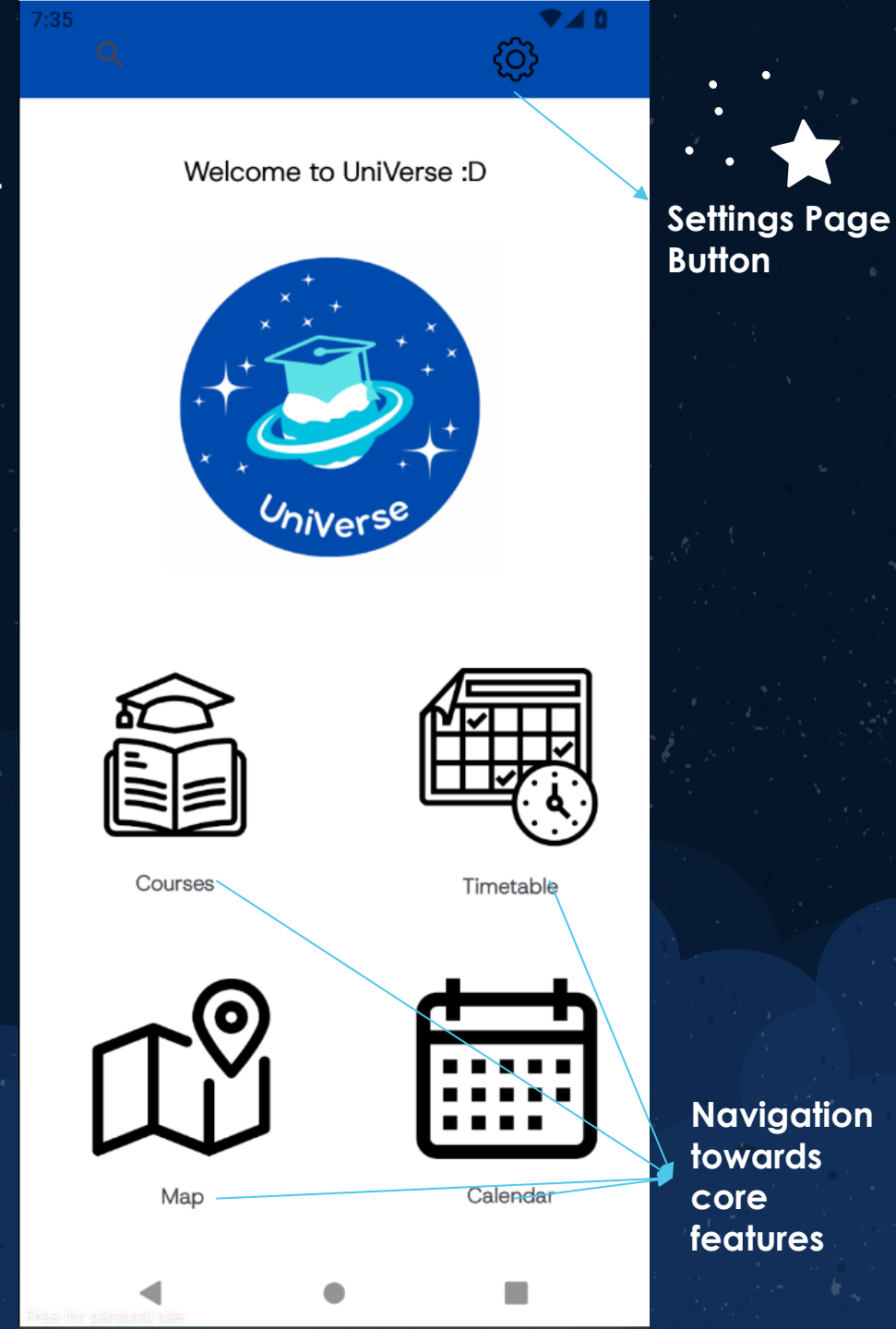
ensures secure and reliable login using email/password or Google Sign-In.

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.



Home page - code



- **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.

Toolbar with Embedded SearchView

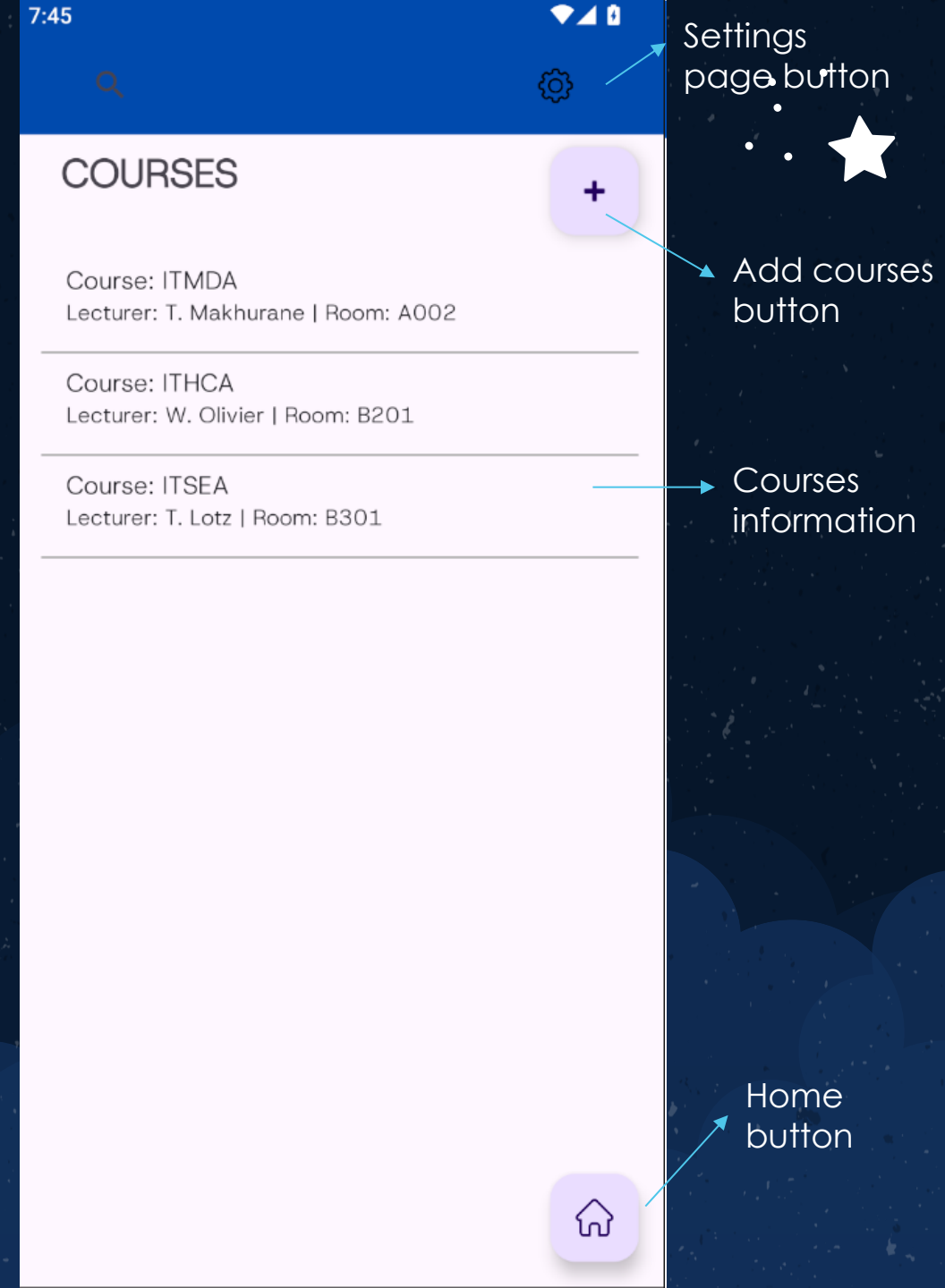
Embedded SearchView

Welcome Textview

```
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"
```

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

7:47

Add New Course

ITAPA

V. Azom

A001

Cancel Save

Free for personal use

Annotations:

- Add course name
- Add lecturer name
- Add room number
- 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">
```

Tool bar and
search view

```
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" />
```

Text view:
Courses

List view for
courses info

```
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 <com.google.android.material.floatingactionbutton.FloatingActionButton
72     android:id="@+id/button"
73     android:layout_width="wrap_content"
74     android:layout_height="wrap_content"
75     android:layout_margin="16dp"
76     android:contentDescription="activity my courses"
77     app:srcCompat="@drawable/home"
78     app:layout_constraintBottom_toBottomOf="parent"
79     app:layout_constraintEnd_toEndOf="parent" />
```

Button for
home page

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

Search bar

Settings button

Add Button

TableLayout for viewing schedule

Home Button

The screenshot shows a mobile application interface for a timetable. At the top, a blue header bar contains a search bar, a settings button (gear icon), and a home button (house icon). The main content area is titled 'TIMETABLE' and features a table with columns for days of the week (Monday, Tuesday, Wednesday, Thursday) and rows for time slots (7:00, 8:00, 9:00, 10:00, 11:00, 12:00, 13:00, 14:00, 15:00). The table cells contain course names and room numbers. A purple '+' button is located in the top right corner of the timetable area. A blue bracket on the left side of the timetable table is labeled 'TableLayout for viewing schedule'. A blue arrow points from the 'Add Button' text to the '+' button. Another blue arrow points from the 'Home Button' text to the home icon in the bottom right corner.

	Monday	Tuesday	Wednesday	Thursday
7:00				
8:00				ITMDA Room: A00
9:00				ITMDA Room: A00
10:00	ITSEA Room: B301	ITHCA Room: B201		ITMDA Room: A00
11:00	ITSEA Room: B301	ITHCA Room: B201		
12:00				
13:00				
14:00			ITSEA Room: B301	
15:00			ITSEA Room: B301	

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

7:55

Add Timetable Entry

ITHCA → Add course name

friday → Add course day

B201 → Add course location

12:00 → Add course times

15:00

Cancel → Save information

Save → Cancel information addition

Free for personal use

TableLayout with Nested Scroll Bars

Timetable – code snippet

1 – (Vertical) ScrollView

```
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
76 <LinearLayout
84     app:layout_constraintStart_toStartOf="parent"
85     app:layout_constraintTop_toTopOf="parent">
86     <ScrollView
87         android:layout_width="match_parent"
88         android:layout_height="match_parent">
89
90         <LinearLayout
91             android:layout_width="match_parent"
92             android:layout_height="wrap_content"
93             android:orientation="vertical" >
```

2 – Horizontal ScrollView

```
96     <HorizontalScrollView
97         android:layout_width="match_parent"
98         android:layout_height="match_parent">
99
100         <LinearLayout
101             android:layout_width="wrap_content"
102             android:layout_height="match_parent"
103             android:orientation="vertical" >
```

3 – TableLayout

```
104     <TableLayout
105         android:layout_width="match_parent"
106         android:layout_height="wrap_content"
107         android:scrollbars="horizontal|vertical"
108         android:stretchColumns="1,2,3,4,5"
109         android:visibility="visible">
```

<TableRow> Day of the Week Columns

```
<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"
```

Timeslot Rows

```
<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" />
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:padding="8dp" />
```

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

Search bar

Add Button

Campus title

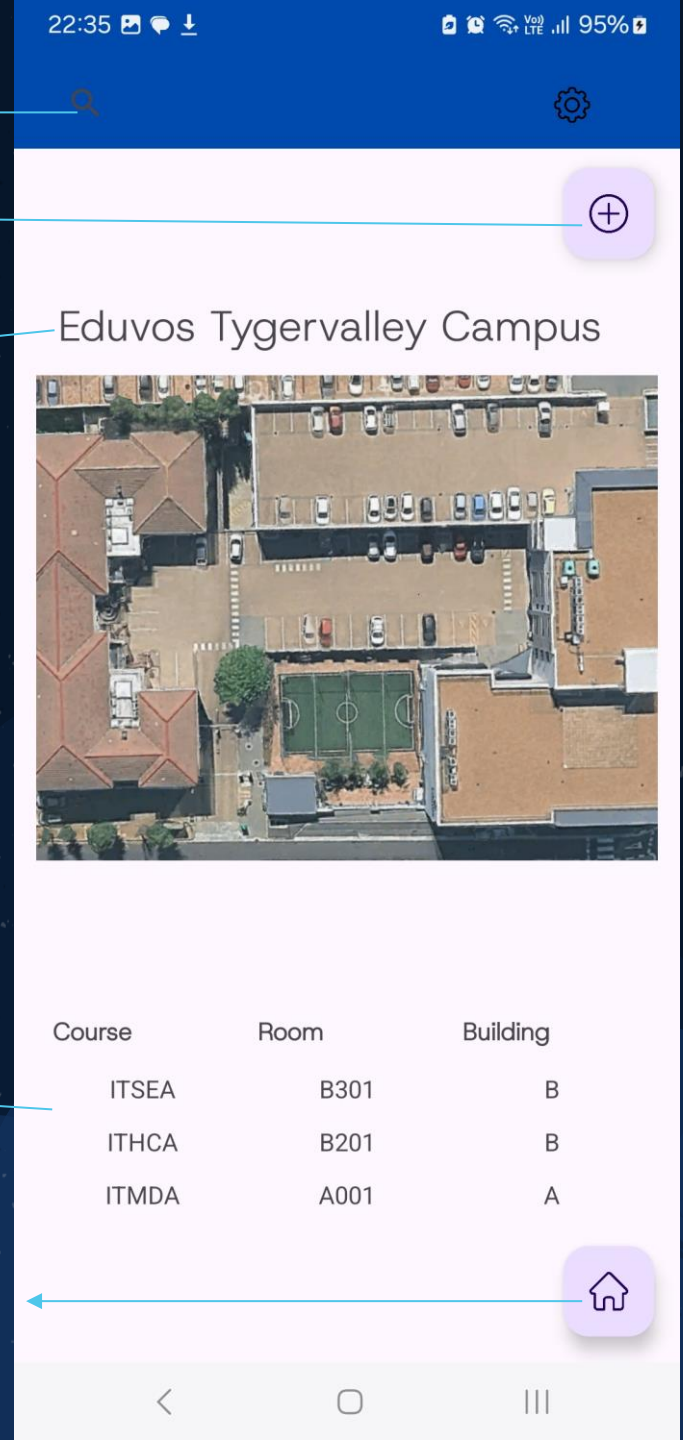
Eduvos Tygervally Campus



Map table

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

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

The screenshot shows a mobile application interface for adding a map entry. The form has the following fields and controls:

- Course name:** A text input field containing the value "ITBEA".
- Course location:** A text input field containing the value "B206".
- Building location:** A text input field containing the value "B".
- Upload map button:** A purple circular button with a white plus sign icon, labeled "Add Map Image".
- Save information:** A blue rounded rectangular button labeled "Save".
- Cancel information addition:** A blue rounded rectangular button labeled "Cancel".

Blue arrows point from the labels on the left to their corresponding elements in the form.

Map – code snippet

<ImageView

ImageView for map

```
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" />
```

<ScrollView

Part of the map table code

```
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 -->

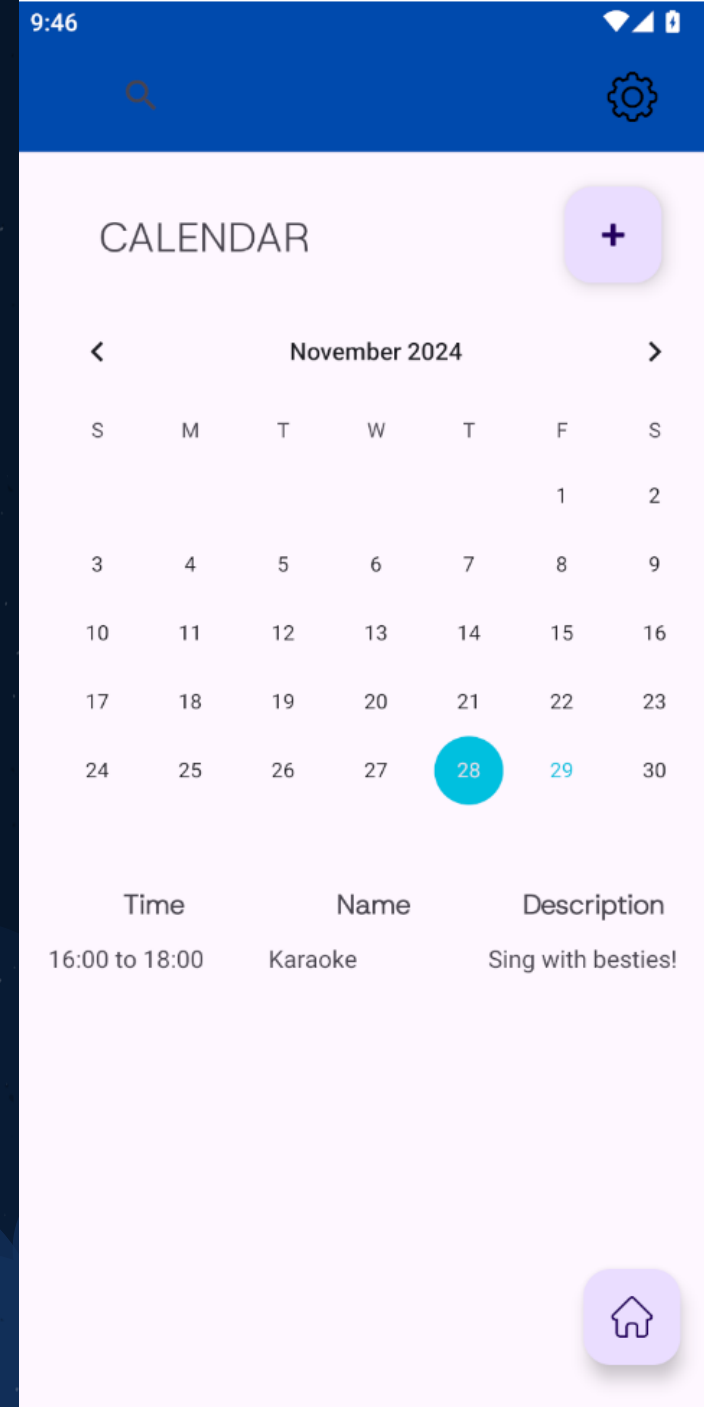
<TableRow>

<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 event information

Calendar

Calendar table

Home page

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

9:43

Create New Event

Study ITSEA

Revise UML diagrams and ch. 1 to 5

2024/11/27

08:00

12:00

Cancel Save

→ Add event name

→ Add event description

→ Add event date

Add event times

→ Save information

→ Cancel information addition

My Calendar - code

CalendarView to show
interactable calendar

<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">
```

<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

<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

Delete account information

Change app language

The screenshot shows the 'Settings' app interface. At the top, there is a blue header bar with a white back arrow icon and the word 'Settings'. Below this, the 'Account' section is visible, featuring a 'Delete Account:' label, the email address 'lilyvdm@gmail.com', a password field with dots, and a blue 'Delete' button. The 'Language' section is also visible, showing three language options: 'English', 'Afrikaans', and 'isiZulu', each in a blue rounded rectangle. Annotations with arrows point to the back arrow, the email address, and the language options.

7:22

Settings

Account

Delete Account:

lilyvdm@gmail.com

.....

Delete

Language

English

Afrikaans

isiZulu

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"
```

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

Settings

<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" />
```

Section to enter delete
account info

<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!)

Language

English

Afrikaans

isiZulu

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?

CV Links:

Yatish



Zia

