IT2010 – Mobile Application Development
BSc (Hons) in Information Technology
2nd Year
Faculty of Computing
SLIIT

2023 – Assessment 01
Phase 1 Report

Description	Student ID	Name
Group Leader	IT21228094	Mendis A.R.P.
Member 2	IT21239366	Niwantha W.P.I
Member 3	IT21225574	Jayasinghe J.A.J.M.
Member 4	IT21231100	Sandaruwan W.M.I.M.

Application Topic	Agarwood plant schedule inquiries and purchase and sales management- Agarwood OudCraft
Group Name	Agarwood OudCraft_ IT_WD_ 03_01

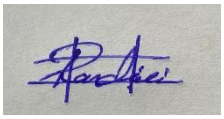
Project Declaration

We, the members of Agarwood OudCraft_ IT_WD_ 03_01, hereby declare that our group project is entirely authentic and original. We have conducted thorough research and analysis to ensure that our work is not plagiarized or copied from any other sources.

We have followed all guidelines provided by our LIC and have complied with all ethical and academic standards.

We take full responsibility for the authenticity of our work and understand the implications of academic dishonesty. We have worked collaboratively to produce this project, and each member has contributed to the best of their abilities.

We hereby affirm that our project represents our honest effort and commitment to academic integrity, and we take pride in presenting it as our own.



Group Leader (Signature)
Mendis A.R.P.

Description about the overall project

Agarwood, also known as oud, is a highly valued and sought-after natural resource that has a strong demand in international markets. It is a rare and exotic wood that is prized for its fragrance, and it is used in the production of perfumes, incense, and traditional medicines. Sri Lanka has a significant potential for the cultivation of Agarwood trees, and the industry can play a significant role in boosting the country's economy.

To help farmers cultivate Agarwood trees more efficiently and effectively, we propose to develop a mobile application that provides them with the necessary knowledge and tools. The mobile application will be designed to support all aspects of Agarwood tree cultivation, from planting to harvesting and marketing. It will offer farmers access to information on best practices for planting, irrigation, pest control. The application will also provide real-time data on weather changes and alerts on potential disease outbreaks, enabling farmers to take timely action to protect their crops.

Moreover, the application will feature a marketplace that connects farmers with potential buyers and sellers of Agarwood products. This will provide farmers with the opportunity to market their products directly and get the best prices for their produce, without the need for intermediaries. The marketplace will also provide information on market trends, demand and supply dynamics, and pricing information to help farmers make informed decisions.

The mobile application will be developed using the latest technologies, ensure that it delivers accurate and timely information to farmers. The application will also be designed to be user-friendly and accessible to all farmers, regardless of their level of education or technological expertise.

The primary objective of the project is to promote sustainable agriculture practices that benefit both the farmers and the environment. By cultivating Agarwood trees, farmers can not only generate income but also contribute to preserving the environment and protecting Sri Lanka's rich biodiversity. Agarwood trees are known for their medicinal properties and have been used in traditional medicine for centuries.

In conclusion, the Agarwood tree cultivation mobile application is an innovative solution that leverages technology to promote sustainable agriculture practices and support the growth of Sri Lanka's economy. The application provides farmers with access to vital information and resources, enabling them to cultivate high-quality Agarwood products while protecting the environment. By supporting the growth of the Agarwood industry, we can create new opportunities for farmers, boost the economy, and contribute to the preservation of Sri Lanka's natural heritage.

Member wise description on what is their contribution

IT21239366 – Community

The community feature in an Android app is designed to create a space where users can engage with each other and share their experiences, opinions, and ideas related to the app's content or services. This feature can include a range of tools and functionalities, such as discussion forums, messaging systems, user profiles, and social sharing options. The community feature serves several purposes. Firstly, it can help foster a sense of belonging among app users, creating a community around a shared interest or goal. This can lead to increased engagement and loyalty towards the app, as users feel that they are part of a larger community that shares their values or interests.

Secondly, the community feature can help app developers gain insights into their users' needs and preferences. By monitoring user activity and engagement within the community feature, developers can identify popular topics, frequently asked questions, and areas of confusion or dissatisfaction. This information can then be used to make improvements to the app's content, features, or user interface, resulting in a better user experience overall.

Finally, the community feature can be a valuable tool for user support and feedback. Users can use the community to ask questions, report issues or bugs, and offer suggestions for improvement. This can help developers identify and address problems quickly, as well as prioritize feature requests based on user demand.

Overall, the community feature is an essential part of many successful Android apps, providing users with a platform to connect with one another, share their thoughts and ideas, and contribute to the ongoing development and improvement of the app.

IT21225574 – Customized plant schedules

The mobile application for developing agarwood trees offers a unique function of creating customized plant schedules for farmers. The application collects essential information from farmers regarding the size of their land, the number of plants they want to grow, and the age of their existing plants. This data helps the application to generate personalized schedules for planting, pruning, and harvesting agarwood trees.

By utilizing the personalized schedules, farmers can optimize their yields and increase the quality of their agarwood production. The application also provides timely reminders for important dates and weather alerts, which enables farmers to manage their plantations more efficiently. Additionally, the application offers a wide range of resources and information related to agarwood tree cultivation, making it a one-stop solution for managing an agarwood plantation.

With this application, farmers can take an informed and proactive approach to their agarwood cultivation, ultimately contributing to the growth of the Sri Lankan economy. The application enables farmers to manage their plantations more efficiently, and the increased production of agarwood can help to boost the country's economy. Therefore, the mobile application for developing agarwood trees is an innovative and valuable tool for Sri Lankan farmers.

IT21228094-BUY/SELL

The agarwood mobile application is a platform designed to facilitate the buying and selling of agarwood, which is a highly prized and valuable resource used in various industries, such as perfume making, incense production, and traditional medicine. This app has the potential to help support and grow the economy in several ways.

Firstly, the agarwood mobile application can streamline the buying and selling process by connecting buyers and sellers in a centralized platform. This makes the process more efficient, leading to faster transaction times and increased trade volume, which ultimately helps boost economic activity.

Secondly, the platform creates a niche market that can support local businesses and entrepreneurs. This can encourage innovation and entrepreneurship, which are vital drivers of economic growth. By focusing on agarwood, the app can create a unique marketplace that can help support small businesses and encourage local economic development.

Finally, the agarwood mobile application is accessible to anyone with a smartphone or mobile device. This creates opportunities for people who may not have had access to traditional markets, expanding access to markets for everyone and creating new opportunities for economic growth.

Overall, the agarwood mobile application can be a powerful tool for growing the economy by connecting buyers and sellers, creating new opportunities for entrepreneurs and businesses, and expanding access to markets for everyone.

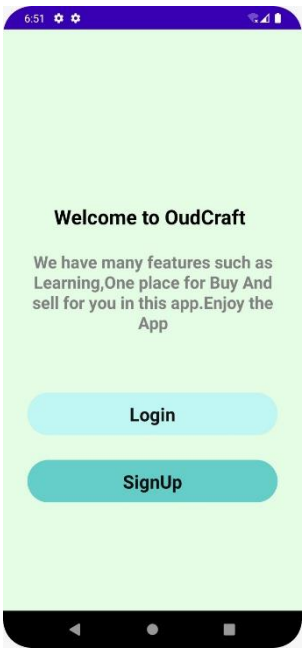
IT21231100- Buy (sub category payment), MY profile & (sub category add card)

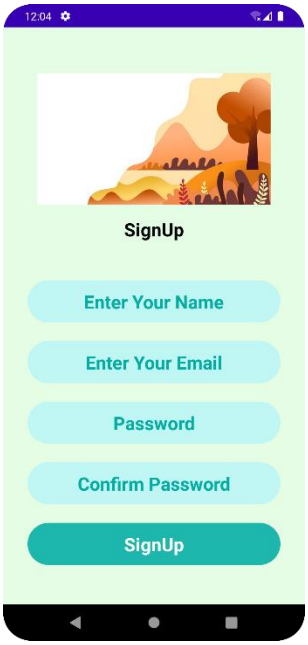
When a user view and buy something from the buy and sell, the user will navigate to the payment page. Here the system asks for card details. If the user has already given the card details through the add card, the card details will automatically fill. If not, the user must add card details manually. After the completing the asked data user can click process to pay button and pay for the item. If the transaction is success a success message will be displayed as a document. If not an error message will be displayed on the wrongly inserted data section. Here the user has the ability to download the confirmation document of the transaction.

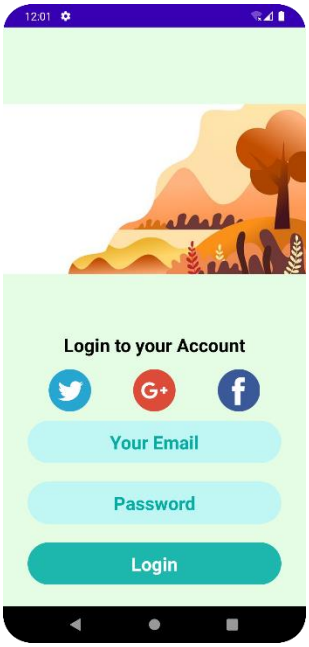
This is where the user can input their credit card or debit card information. By adding the card, user can make payments easier and faster, without entering payment information manually on each time when they make a purchase. User can add a suitable card by clicking the add button in the user profile page. In this section user must input the card details which includes cardholder's name, card number, expiration date, and cvv. Also, here we have given the ability to delete the card from this app. By clicking the delete button next to the add button. Then the user can add a new card or update the previous card by adding the card details again. When the user adds a card and make a purchase the user’s card details will be filled automatically in the checkout. This will be an advantage for the user.

Screenshots of the all-user interfaces. (Member wise)

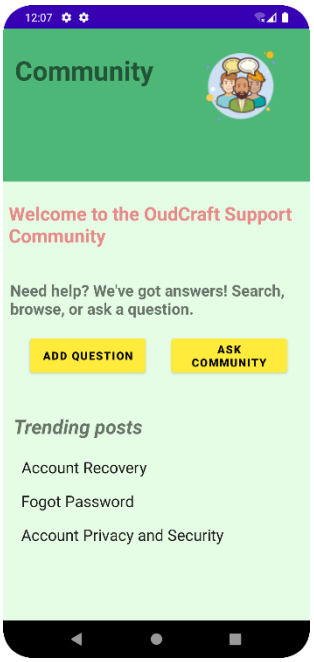
(IT21239366| Login page ,signup, dashboard page)

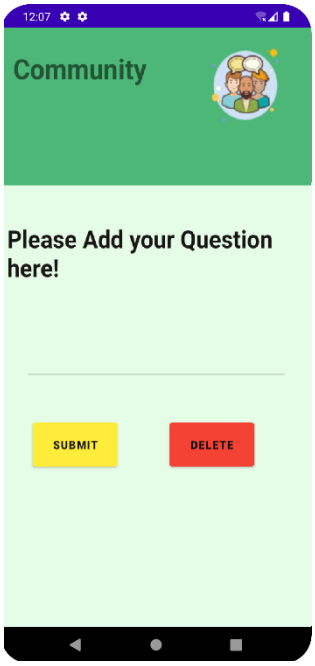




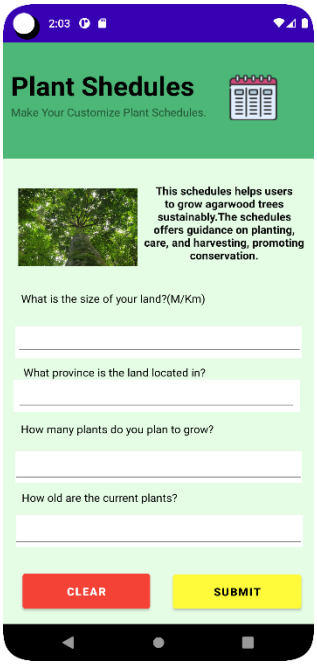


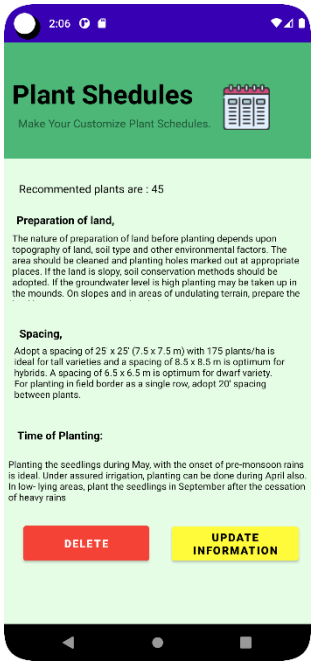
IT21239366 – Community



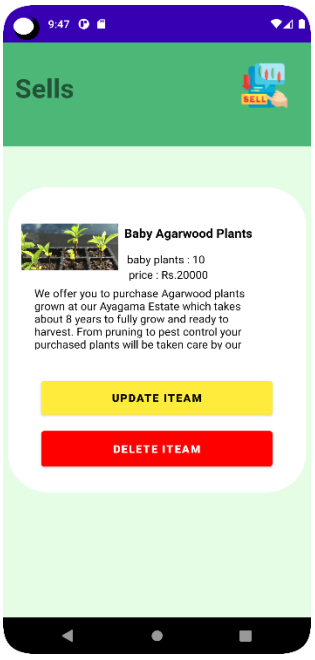


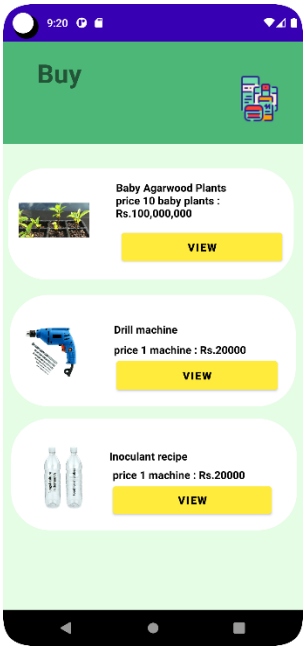
IT21225574 – Customized plant schedules

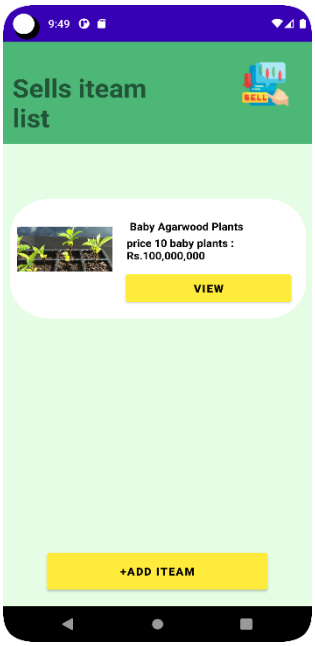


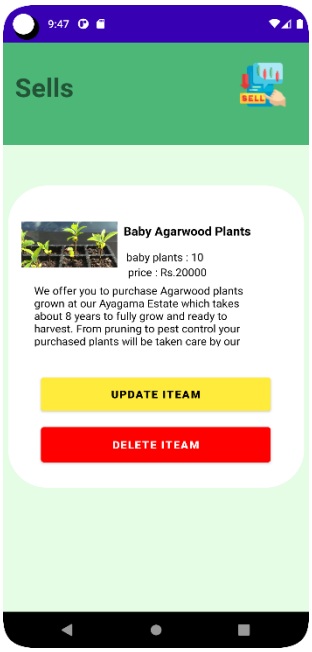


IT21228094-BUY & SELL

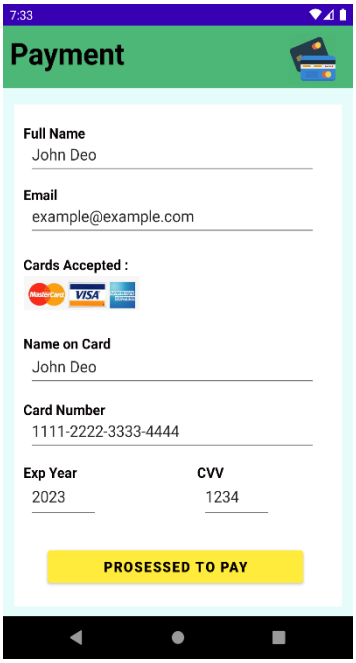




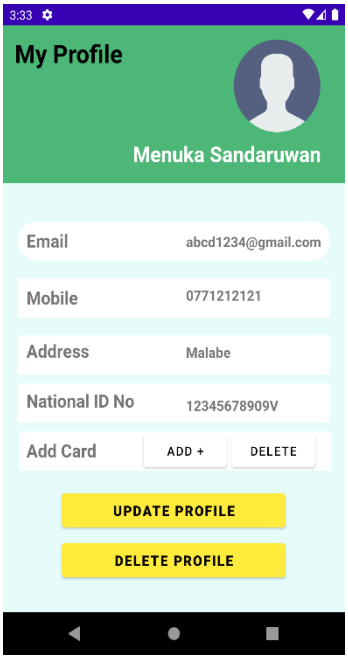


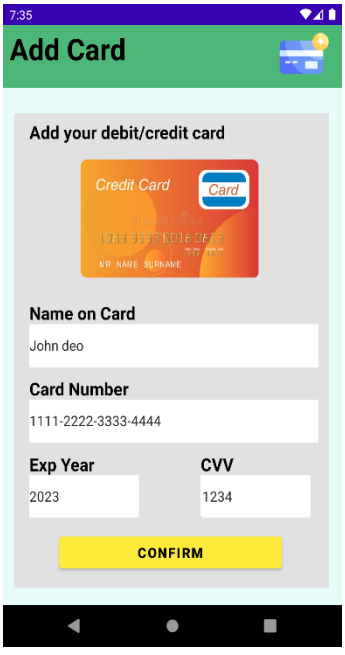


IT21231100- Buy (sub category payment gateway)



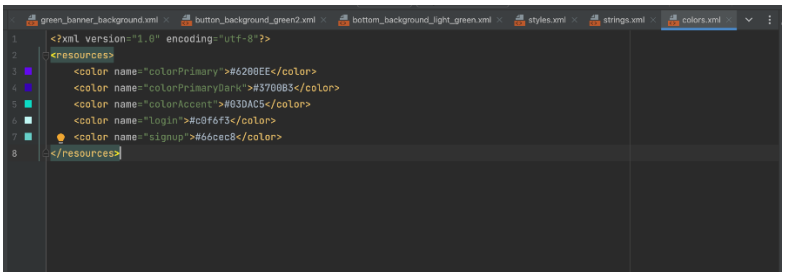
MY profile & (sub category add card)

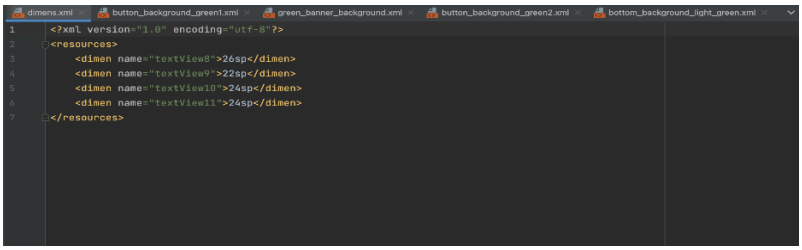


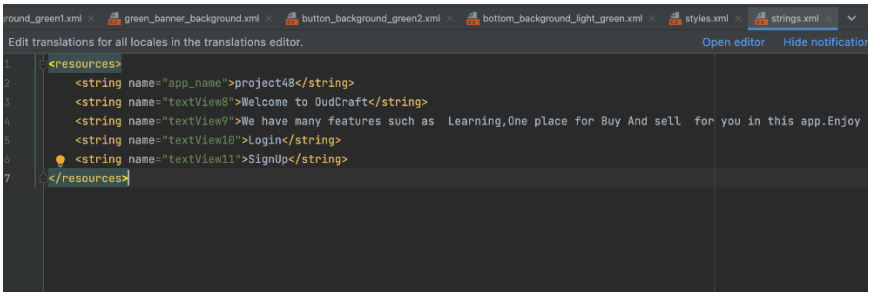


Screenshots of the usages of resources (String, colors, dimensions, …)
(IT21239366| Login, Startup, Signup, Dashboard page)

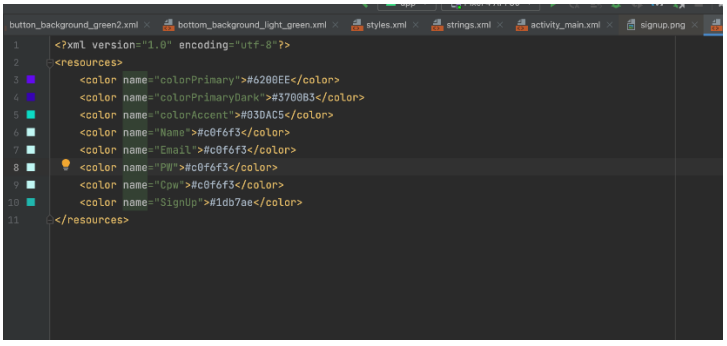
Startup







signup



```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <dimen name="textView12">24sp</dimen>
    <dimen name="textView14">24sp</dimen>
    <dimen name="textView15">24sp</dimen>
    <dimen name="textView16">24sp</dimen>
    <dimen name="textView17">24sp</dimen>
    <dimen name="textView18">24sp</dimen>
</resources>
```

Edit translations for all locales in the translations editor. Open editor

```xml
<resources>
    <string name="app_name">project48</string>
    <string name="textView12">SignUp</string>
    <string name="textView14">Enter Your Name</string>
    <string name="textView15">Enter Your Email</string>
    <string name="textView16">Password</string>
    <string name="textView17">Confirm Password</string>
    <string name="textView18">SignUp</string>
</resources>
```

Login page

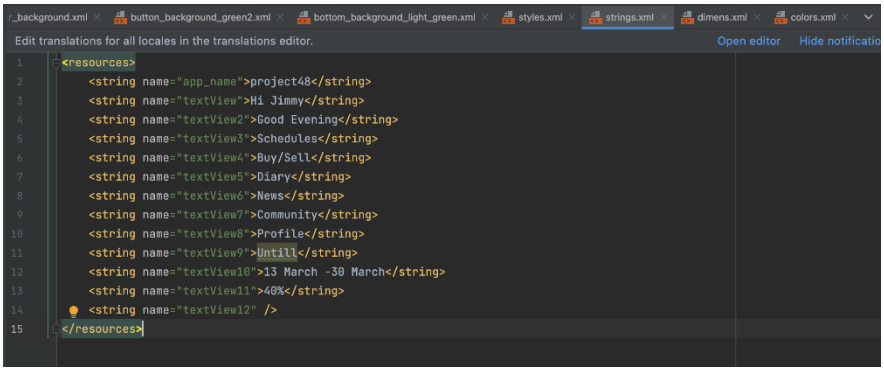
Edit translations for all locales in the translations editor. Open edit

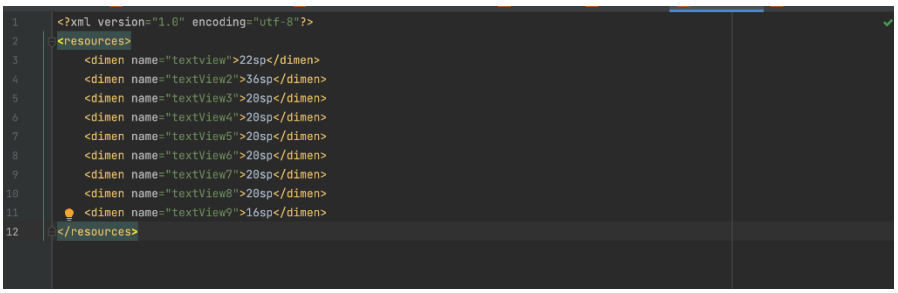
```xml
<resources>
    <string name="app_name">project48</string>
    <string name="textView12">Login to your Account</string>
    <string name="textView14">Your Email</string>
    <string name="textView15">Password</string>
    <string name="textView16">Login</string>

</resources>
```

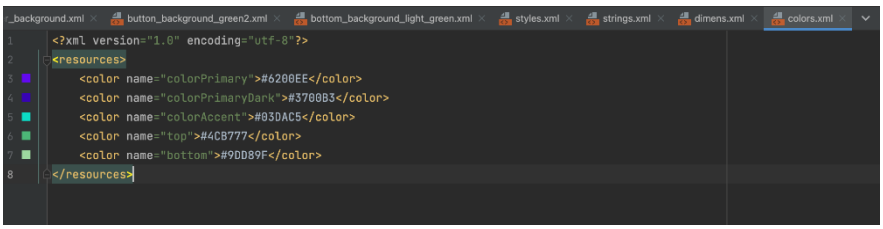
```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <dimen name="textView12">24sp</dimen>
    <dimen name="textView14">24sp</dimen>
    <dimen name="textView15">24sp</dimen>
    <dimen name="textView16">24sp</dimen>
</resources>
```

```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <color name="colorPrimary">#6200EE</color>
    <color name="colorPrimaryDark">#3700B3</color>
    <color name="colorAccent">#03DAC5</color>
    <color name="email">#c0f6f3</color>
    <color name="pw">#c0f6f3</color>
    <color name="login">#1db7ae</color>
</resources>
```

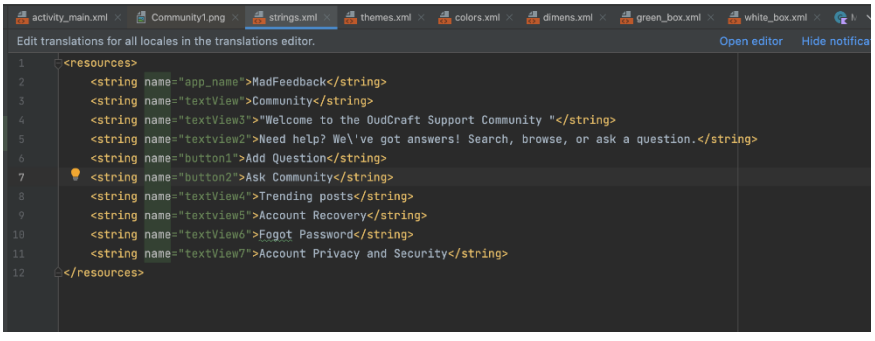
Dashboard page

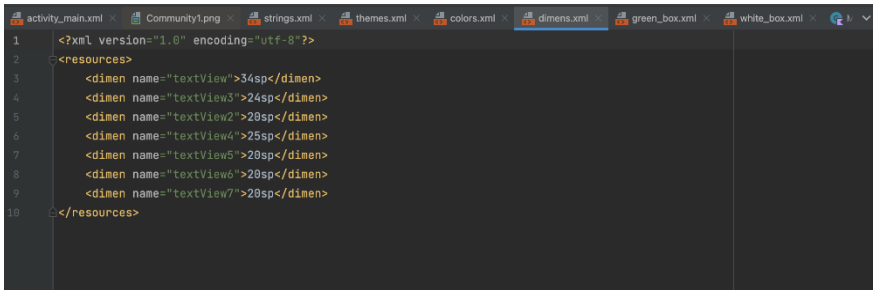






IT21239366 – Community





activity_main.xml | Community1.png | strings.xml | themes.xml | colors.xml | green_box.xml | white_box.xml | MainActivity.kt

```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <color name="purple_200">#FFBB86FC</color>
    <color name="purple_500">#FF6200EE</color>
    <color name="purple_700">#FF3700B3</color>
    <color name="teal_200">#FF03DAC5</color>
    <color name="teal_700">#FF018786</color>
    <color name="black">#FF000000</color>
    <color name="white">#FFFFFFFF</color>
    <color name="imageView">#4CB777</color>
    <color name="button1">#FFEB3B</color>
    <color name="button2">#FFEB3B</color>
</resources>
```

IT21225574 – Customized plant schedules

activity_second_page_she.xml | colors.xml | font_certs.xml | preloaded_fonts.xml | activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <color name="purple_200">#FFBB86FC</color>
    <color name="purple_500">#FF6200EE</color>
    <color name="purple_700">#FF3700B3</color>
    <color name="teal_200">#FF03DAC5</color>
    <color name="teal_700">#FF018786</color>
    <color name="black">#FF000000</color>
    <color name="white">#FFFFFFFF</color>
    <color name="yellowbotton">#FFFB3B</color>
    <color name="correctbotton">#FFFB3B</color>
    <color name="Cancelbotton">#F44336</color>
    <color name="cancelbotton2">#f44336</color>
    <color name="background2">#e5fce5</color>
    <color name="background1">#e5fce5</color>
</resources>
```

activity_second_page_she.xml | colors.xml | dimens.xml | font_certs.xml | preloaded_fonts.xml | activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <dimen name="Mainheader">34sp</dimen>
    <dimen name="Mainheadersub">14sp</dimen>
    <dimen name="Aimtext">14sp</dimen>
    <dimen name="Q1">14sp</dimen>
    <dimen name="Q2">14sp</dimen>
    <dimen name="Q3">14sp</dimen>
    <dimen name="Q4">14sp</dimen>
    <dimen name="page1redbotton">14sp</dimen>
    <dimen name="page1yellowbotton">14sp</dimen>
    <dimen name="Maintitle2">34sp</dimen>
    <dimen name="subMaintitle">14sp</dimen>
    <dimen name="R1">14sp</dimen>
    <dimen name="R2">14sp</dimen>
    <dimen name="R4">12sp</dimen>
    <dimen name="R5">14sp</dimen>
    <dimen name="R6">12sp</dimen>
    <dimen name="R7">14sp</dimen>
    <dimen name="R8">12sp</dimen>
    <dimen name="cancel2">14sp</dimen>
    <dimen name="yellow2">14sp</dimen>
</resources>
```

ty_second_page_she.xml | colors.xml | dimens.xml | strings.xml | font_certs.xml | preloaded_fonts.xml | activity_main.xml

lations for all locales in the translations editor. Open editor | Hide notification

```xml
<resources>
    <string name="app_name">shedule1</string>
    <string name="shedule1">Plant Shedules</string>
    <string name="makecusplant">Make Your Customize Plant Schedules.</string>
    <string name="landsize">What is the size of your land?(M/Km)</string>
    <string name="land_1">What province is the land located in?</string>
    <string name="land_2">How many plants do you plan to grow?</string>
    <string name="land_4">How old are the current plants?</string>
    <string name="land3_but1">CLEAR</string>
    <string name="land4_but2">Submit</string>
    <string name="plants_2">Delete</string>
    <string name="land_3">Update Information</string>
    <string name="recoplant">Recommented plants are : 45</string>
    <string name="prepaland">Preparation of land,</string>
    <string name="prepapara">The nature of preparation of land before planting depends upon topography of land, soil type and other environmental factors. The area should be cleaned and plan
    <string name="spc">Spacing,</string>
    <string name="spcpara">Adopt a spacing of 25\' x 25\' (7.5 x 7.5 m) with 175 plants/ha is ideal for tall varieties and a spacing of 8.5 x 8.5 m is optimum for hybrids. A spacing of 6.5 x
    <string name="aim">This schedules helps users to grow agarwood trees sustainably.The schedules offers guidance on planting, care, and harvesting, promoting conservation.</string>
</resources>
```

IT21228094-BUY & SELL

```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <color name="purple_200">#FFBB86FC</color>
    <color name="purple_500">#FF6200EE</color>
    <color name="purple_700">#FF3700B3</color>
    <color name="teal_200">#FF03DAC5</color>
    <color name="teal_700">#FF018786</color>
    <color name="black">#FF000000</color>
    <color name="white">#FFFFFFFF</color>
    <color name="background_color">#e5fce5</color>
    <color name="butn">#FFEB3B</color>
    <color name="gre_box_color">#4CB777</color>
</resources>
```

```xml
<resources>
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    <string name="tex1">Product </string>
    <string name="hed1"><![CDATA[Buy & Sell]]></string>
    <string name="but1_by">BUY</string>
    <string name="hed2">Buy</string>
    <string name="by_tex1">Baby Agarwood Plants</string>
    <string name="by_tex_pri1">price 10 baby plants : Rs.100,000,000</string>
    <string name="by_but_view1">view</string>
    <string name="by_tex_pri2">price 1 machine : Rs.20000</string>
    <string name="by_tex2">Drill machine</string>
    <string name="by_but_view2">View</string>
    <string name="by_tex3">Inoculant recipe</string>
    <string name="by_tex_pri3">price 1 machine : Rs.20000</string>
    <string name="by_but_">View</string>
    <string name="item_viw_1">Iteam Viwe</string>
    <string name="iteam_by_tex1">We offer you to purchase Agarwood plants grown at our Ayagama Estate which takes about 8 years
    <string name="item_by_tex2">Baby Agarwood Plants</string>
    <string name="by_iteam_buy_now">Buy Now</string>
    <string name="sells_add_remo">Sells</string>
    <string name="sells_up">Update iteam</string>
    <string name="sells_dele">Delete iteam</string>
    <string name="sells_item_iteam_add">+ Add Iteam</string>
    <string name="sells_tex_1">baby plants : 10</string>
    <string name="sells_item_pri">price  : Rs.20000</string>
    <string name="item_buy_size">baby plants :10 </string>
    <string name="iteam_by_plus">+</string>
    <string name="sells_by_iteam">baby plants 10 price :100,000,000</string>
    <string name="iteam_totle">+</string>
    <string name="iteam_view">total price: Rs.100,000,000</string>
    <string name="but2_sell">Sell</string>
    <string name="but2_by">Buy</string>
    <string name="sells_iteam">+Add iteam</string>
    <string name="sells_iteam1">Baby Agarwood Plants</string>
    <string name="sells_iteam3">price 10 baby plants : Rs.100,000,000</string>
    <string name="sells_iteam_but1">view</string>

</resources>
```
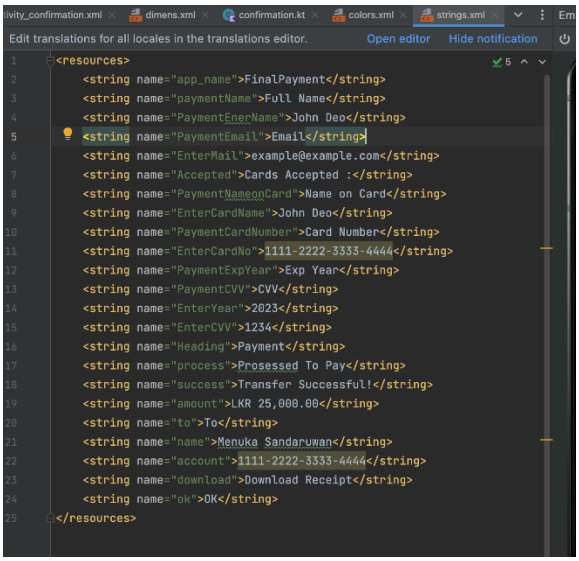
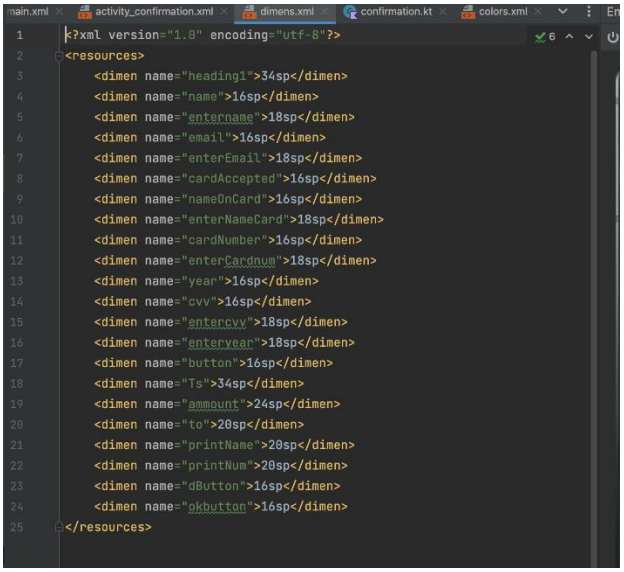
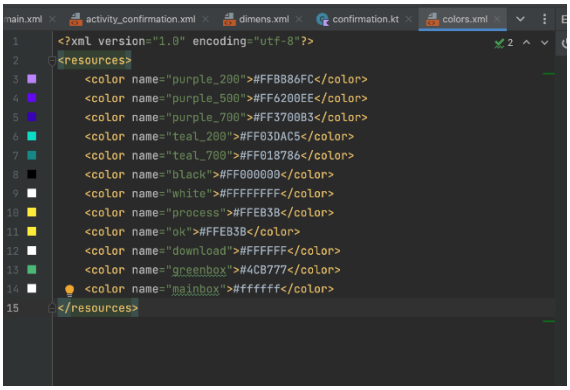

```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <dimen name="text_heder_size">34sp</dimen>
    <dimen name="main_sell_buy_but1">34sp</dimen>
    <dimen name="main_sell_buy_but2">34sp</dimen>
    <dimen name="buy_header_tex1">34sp</dimen>
    <dimen name="veiw_item_nam1">14sp</dimen>
    <dimen name="veiw_iteam_pr1">14sp</dimen>
    <dimen name="viwe_bu1">14sp</dimen>
    <dimen name="veiw_item_nam2">14sp</dimen>
    <dimen name="veiw_iteam_pr2">14sp</dimen>
    <dimen name="viwe_bu2">14sp</dimen>
    <dimen name="veiw_item_nam3">14sp</dimen>
    <dimen name="veiw_iteam_pr3">14sp</dimen>
    <dimen name="viwe_bu3">14sp</dimen>
    <dimen name="sells_iteam1">34sp</dimen>
    <dimen name="sells_ite_name1">16sp</dimen>
    <dimen name="sells_iteam_tex1">14sp</dimen>
    <dimen name="sells_iteam_tex2">14sp</dimen>
    <dimen name="sells_iteam_tex3">14sp</dimen>
    <dimen name="sells_iteam_but1">14sp</dimen>
    <dimen name="sells_iteam_but2">14sp</dimen>
    <dimen name="item_view_hed1">34sp</dimen>
    <dimen name="iteam_viwe_nam1">20sp</dimen>
    <dimen name="iteam_viwe_tex1">20sp</dimen>
    <dimen name="iteam_viwe_tex2">20sp</dimen>
    <dimen name="iteam_viwe_tex3">20sp</dimen>
    <dimen name="iteam_viwe_tex4">14sp</dimen>
    <dimen name="tex_veiw_but1">24sp</dimen>
    <dimen name="iteam_view_bu2">16sp</dimen>
    <dimen name="sells_iteam_list1">14sp</dimen>
    <dimen name="iteam_tex_1">14sp</dimen>
    <dimen name="sells_iteam_viwe_bu1">14sp</dimen>
    <dimen name="sells_iteam_viwe_bu2">14sp</dimen>
</resources>
```

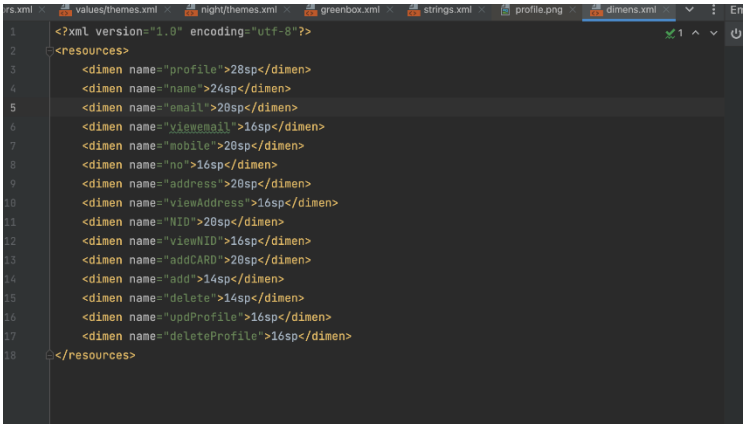
IT21231100- Buy (sub category payment gateway)



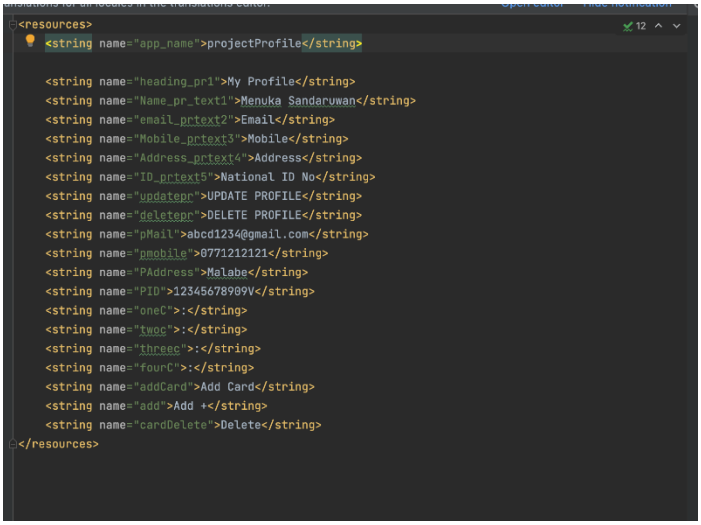




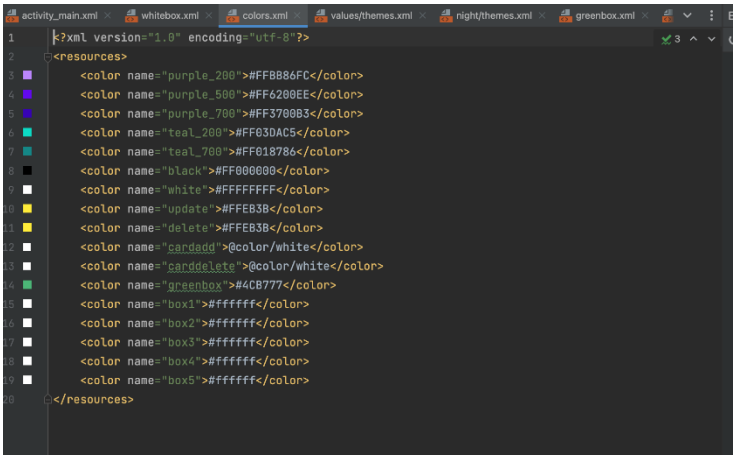
IT21231100- MY profile

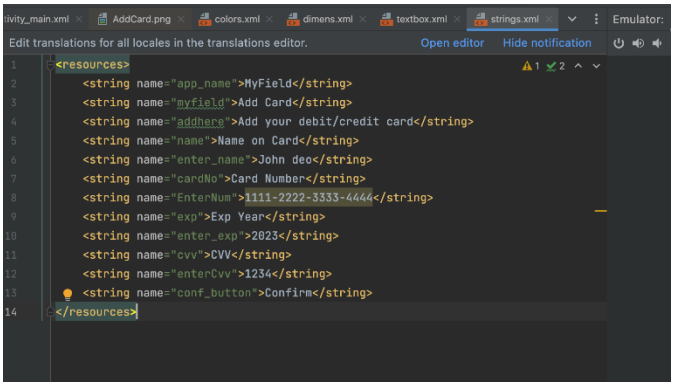
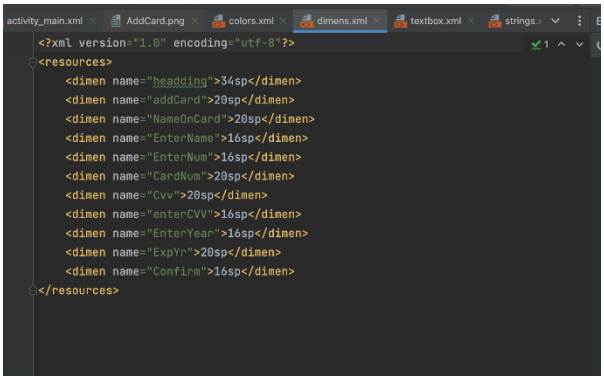
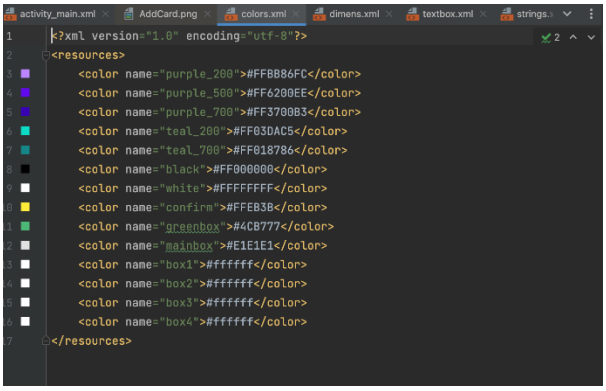


```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <dimen name="profile">28sp</dimen>
    <dimen name="name">24sp</dimen>
    <dimen name="email">20sp</dimen>
    <dimen name="viewemail">16sp</dimen>
    <dimen name="mobile">20sp</dimen>
    <dimen name="no">16sp</dimen>
    <dimen name="address">20sp</dimen>
    <dimen name="viewAddress">16sp</dimen>
    <dimen name="NID">20sp</dimen>
    <dimen name="viewNID">16sp</dimen>
    <dimen name="addCARD">20sp</dimen>
    <dimen name="add">14sp</dimen>
    <dimen name="delete">14sp</dimen>
    <dimen name="updProfile">16sp</dimen>
    <dimen name="deleteProfile">16sp</dimen>
</resources>
```



```xml
<resources>
    <string name="app_name">projectProfile</string>

    <string name="heading_pr1">My Profile</string>
    <string name="Name_pr_text1">Menuka Sandaruwan</string>
    <string name="email_prtext2">Email</string>
    <string name="Mobile_prtext3">Mobile</string>
    <string name="Address_prtext4">Address</string>
    <string name="ID_prtext5">National ID No</string>
    <string name="updatepr">UPDATE PROFILE</string>
    <string name="deletepr">DELETE PROFILE</string>
    <string name="pMail">abcd1234@gmail.com</string>
    <string name="pmobile">0771212121</string>
    <string name="PAddress">Malabe</string>
    <string name="PID">12345678909V</string>
    <string name="oneC">:</string>
    <string name="twoc">:</string>
    <string name="threec">:</string>
    <string name="fourC">:</string>
    <string name="addCard">Add Card</string>
    <string name="add">Add +</string>
    <string name="cardDelete">Delete</string>
</resources>
```



```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <color name="purple_200">#FFBB86FC</color>
    <color name="purple_500">#FF6200EE</color>
    <color name="purple_700">#FF3700B3</color>
    <color name="teal_200">#FF03DAC5</color>
    <color name="teal_700">#FF018786</color>
    <color name="black">#FF000000</color>
    <color name="white">#FFFFFFFF</color>
    <color name="update">#FFEB3B</color>
    <color name="delete">#FFEB3B</color>
    <color name="cardadd">@color/white</color>
    <color name="carddelete">@color/white</color>
    <color name="greenbox">#4CB777</color>
    <color name="box1">#ffffff</color>
    <color name="box2">#ffffff</color>
    <color name="box3">#ffffff</color>
    <color name="box4">#ffffff</color>
    <color name="box5">#ffffff</color>
</resources>
```

IT21231100- My profile(sub category add card)