

Name: Project Progress Report.

Theory : Our Project is Bus ticketing system. In order to accomplish a beautiful design and smooth behaviour we will use kivy. We have mostly used kivyMD for this for project. KivyMD a collection of Material Design compliant widgets for use with, Kivy cross-platform graphical framework a framework for cross-platform, touch-enabled graphical applications. We will work with the below mentioned topics on the home page of bus ticketing system.

1. Button
2. Text input
3. GridLayout.
4. Date Picker
5. ScreenManagement

The above functions are explained below:

Button: A typical button is a rectangle or rounded rectangle, wider than it is tall, with a descriptive caption in its center. The most common method of pressing a button is clicking it with a pointer controlled by a mouse, but other input such as keystrokes can be used to execute the command of a button. A button is not however always restricted to a rectangular shape. The sole requirement of button interaction is that the user can execute a command by a click action. Thus pictures and background areas can be programmed as buttons. When pressed, in addition to performing a predetermined task, buttons often undergo a graphical change to mimic a mechanical button being depressed.

Text input: Text inputs are fields that users can type free text into. They are used in forms, status updates, search fields, and more. There are many ways to style an input field, but border and underline are the most popular ones.

Checkbox: A check box, selection box, or tick box is a small interactive box that can be toggled by the user to indicate an affirmative or negative choice. It is

frequently found in HTML input forms, dialog boxes, and in the GUIs of applications and operating systems.

When clicked, a check mark (✓) appears inside the box, to indicate an affirmative choice (yes). When clicked again, the check mark disappears, indicating a negative choice (no).

Check boxes are used when more than one option may need to be checked or as an easy way to enable or disable a setting in a software program. Checking the box enables that setting, and unchecking disables it.

GridLayout: The GridLayout arranges children in a matrix. It takes the available space and divides it into columns and rows, then adds widgets to the resulting “cells”.

DatePicker: Datepicker has been done using kivyMD, this is a very useful component already designed by kivyMD, which is mostly used for taking date as an input from user.

ScreenManagement: This is a very useful feature in kivy. Using this we have connect all the screen with one another.

Code for python file: Below is the python file code of bus ticketing system.

```
from kivy.lang import Builder
from kivy.uix.screenmanager import ScreenManager, Screen
from kivymd.app import MDApp
from kivymd.uix.pickers import MDDatePicker

class MainWindow(Screen):
    pass
class LoginWindow(Screen):
    pass
class SignupWindow(Screen):
    pass
class TicketBuyWindow(Screen):
    pass
class ChooseBusWindow(Screen):
    pass
class WindowManager(ScreenManager):
    pass
class Bus(MDApp):
```

```

def build(self):
    self.theme_cls.theme_style = "Light"
    self.theme_cls.primary_palette = "Purple"
    kv = Builder.load_file('bus.kv')
    return kv

#Login validation
def login(self,username,passwd):
    login_window = MDApp.get_running_app().root.get_screen('login')
    signup_window = MDApp.get_running_app().root.get_screen('signup')
    if(username==signup_window.ids.sign_user.text and
passwd==signup_window.ids.sign_password.text):
        self.root.current = 'buy_ticket'
    else:
        login_window.ids.welcome_label.text = f'Wrong Username and Password'

#Date picker
def on_save(self,instate, value, date_range):
    tickets = MDApp.get_running_app().root.get_screen('buy_ticket')
    tickets.ids.date.text = str(value)
def show_date_picker(self):
    date_dialog = MDDatePicker()
    date_dialog.bind(on_save = self.on_save)
    date_dialog.open()
Bus().run()

```

Code for kivy file: Below is the code for kv file.

```

WindowManager:
    MainWindow:
    SignupWindow:
    LoginWindow:
    TicketBuyWindow:
    ChooseBusWindow:

<MainWindow>:
    name: 'home'
    Screen:
        MDCard:
            size_hint: None, None
            size: 1000,700
            pos_hint: {"center_x": 0.5, "center_y":0.5}
            elevation: 10
            padding: 25
            spacing: 25
            orientation: 'vertical'

```

```

md_bg_color: "darkgrey"
unfocus_color: "darkgrey"
focus_color: "grey"
FitImage:
    #size_hint_y: 1
    source: 'logo.jpg'
MDLabel:
    id: welcome_label
    text: "Welcome to Bus Ticketing Sytem, Please Sign Up in order to
Buy Ticket."
    font_size: 18
    halign: 'center'
    size_hint_y: None
    height: self.texture_size[1]
    padding_y: 15
MDRoundFlatButton:
    text: "LOG IN"
    font_size: 18
    pos_hint: {"center_x":.5}
    on_release:
        app.root.current = 'login'
        root.manager.transition.direction = "left"
MDRoundFlatButton:
    text: "SIGN UP"
    font_size: 18
    pos_hint: {"center_x":.5}
    on_release:
        app.root.current = 'signup'
        root.manager.transition.direction = "left"
Widget:
    size_hint_y: None
    height: 10
<SignupWindow>:
    name: 'signup'
    Screen:
        MDRoundFlatButton:
            text: "Go Back"
            font_size: 15
            pos_hint: {"center_x":.2, "center_y": 0.9}
            on_release:
                app.root.current = 'home'
                root.manager.transition.direction = "right"
        MDCard:
            size_hint: None, None
            size: 300,400
            pos_hint: {"center_x": 0.5, "center_y":0.5}
            elevation: 10

```

```
padding: 25
spacing: 25
orientation: 'vertical'
md_bg_color: "darkgrey"
unfocus_color: "darkgrey"
focus_color: "grey"
MDLabel:
    id: signup_label
    text: "Sign Up to buy ticket."
    font_size: 20
    halign: 'center'
    size_hint_y: None
    height: self.texture_size[1]
    padding_y: 15
MDTextField:
    id: sign_user
    hint_text: "Username"
    mode: "round"
    icon_right: "account"
    size_hint_x: None
    width: 200
    font_size: 18
    pos_hint: {"center_x": 0.5}
MDTextField:
    id: sign_password
    hint_text: "Password"
    mode: "round"
    icon_right: "eye-off"
    size_hint_x: None
    width: 200
    font_size: 18
    pos_hint: {"center_x": 0.5}
MDTextField:
    id: names
    hint_text: "Name"
    mode: "round"
    icon_right: "account"
    size_hint_x: None
    width: 200
    font_size: 18
    pos_hint: {"center_x": 0.5}
MDTextField:
    id: phones
    hint_text: "Phone Number"
    mode: "round"
    icon_right: "cellphone"
    size_hint_x: None
```

```

        width: 200
        font_size: 18
        pos_hint: {"center_x": 0.5}
MDRoundFlatButton:
    text: "SIGN UP"
    font_size: 12
    pos_hint: {"center_x": .5}
    on_press:
        app.root.current = 'login'
        root.manager.transition.direction = "left"
<LoginWindow>:
    name: 'login'
    Screen:
        MDRoundFlatButton:
            text: "Go Back"
            font_size: 15
            pos_hint: {"center_x": .2, "center_y": 0.9}
            on_release:
                app.root.current = 'home'
                root.manager.transition.direction = "right"
        MDCard:
            size_hint: None, None
            size: 300,400
            pos_hint: {"center_x": 0.5, "center_y": 0.5}
            elevation: 10
            padding: 25
            spacing: 25
            orientation: 'vertical'
            md_bg_color: "darkgrey"
            unfocus_color: "darkgrey"
            focus_color: "grey"
            MDLabel:
                id: welcome_label
                text: "Log in to buy ticket."
                font_size: 20
                halign: 'center'
                size_hint_y: None
                height: self.texture_size[1]
                padding_y: 15
            MDTextField:
                id: user
                hint_text: "Username"
                mode: "round"
                icon_right: "account"
                size_hint_x: None
                width: 200
                font_size: 18

```

```

        pos_hint: {"center_x": 0.5}
MDTextField:
    id: password
    hint_text: "Password"
    mode: "round"
    icon_right: "eye-off"
    size_hint_x: None
    width: 200
    font_size: 18
    pos_hint: {"center_x": 0.5}
    password: True
MDRoundFlatButton:
    text: "LOGIN"
    font_size: 12
    pos_hint: {"center_x": .5}
    on_press:
        app.logger(user.text, password.text)
        root.manager.transition.direction = "left"
Widget:
    size_hint_y: None
    height: 10
<TicketBuyWindow>:
    name: 'buy_ticket'
    Screen:
        md_bg_color : [1,1,1,1]
        MDRoundFlatButton:
            text: "Go Back"
            font_size: 15
            pos_hint: {"center_x": .2, "center_y": 0.9}
            on_release:
                app.root.current = 'login'
                root.manager.transition.direction = "right"
        MDLabel:
            id: ticketing
            text: "Buy Tickets"
            font_size: 20
            halign: 'center'
            pos_hint: {"center_x": 0.5, "center_y": 0.8}
            size_hint_y: None
            height: self.texture_size[1]
            padding_y: 15
        MDTextField:
            id: from
            hint_text: "From"
            mode: "round"
            icon_right: "google-maps"
            size_hint_x: None

```

```

        width: 500
        font_size: 18
        pos_hint: {"center_x": 0.5, "center_y": 0.7}
MDTextField:
    id: to
    hint_text: "To"
    mode: "round"
    icon_right: "google-maps"
    size_hint_x: None
    width: 500
    font_size: 18
    pos_hint: {"center_x": 0.5, "center_y": 0.6}
MDFloatLayout:
    pos_hint: {"center_x": .45, "center_y": 0.5}
MDTextField:
    id: date
    hint_text: "Pick a Date"
    mode: "round"
    size_hint_x: None
    width: 500
    font_size: 18
    pos_hint: {"center_x": 0.55, "center_y": 0.5}
MDIconButton:
    icon: "calendar-account"
    pos_hint: {"center_x": .715, "center_y": .5}
    theme_icon_color: "Custom"
    icon_color: app.theme_cls.primary_color
    on_release: app.show_date_picker()
MDRoundFlatButton:
    text: "Search Buses"
    font_size: 15
    pos_hint: {"center_x": .5, "center_y": 0.4}
    on_release:
        app.root.current = 'buses'
        root.manager.transition.direction = "left"
<ChooseBusWindow>:
    name: 'buses'
    Screen:
        MDRoundFlatButton:
            text: "Go Back"
            font_size: 15
            pos_hint: {"center_x": .1, "center_y": 0.9}
            on_release:
                app.root.current = 'buy_ticket'
                root.manager.transition.direction = "right"
MDLabel:
    id: select_bus

```



```

text: "Choose a bus select ticket"
font_size: 20
halign: 'center'
pos_hint: {"center_x": 0.5, "center_y": 0.8}
size_hint_y: None
height: self.texture_size[1]
padding_y: 15
MDFloatLayout:
    MDLabel:
        id: bus_type
        text: "Bus Type"
        font_size: 14
        halign: 'center'
        pos_hint: {"center_x": 0.2, "center_y": 0.7}
        size_hint_y: None
        height: self.texture_size[1]
        padding_y: 15
        theme_text_color: "Custom"
        text_color: "#681D94"
    MDLabel:
        id: dep_time
        text: "Dep. Time"
        font_size: 14
        halign: 'center'
        pos_hint: {"center_x": 0.35, "center_y": 0.7}
        size_hint_y: None
        height: self.texture_size[1]
        padding_y: 15
        theme_text_color: "Custom"
        text_color: "#681D94"
    MDLabel:
        id: arr_time
        text: "Arr. Time"
        font_size: 14
        halign: 'center'
        pos_hint: {"center_x": 0.5, "center_y": 0.7}
        size_hint_y: None
        height: self.texture_size[1]
        padding_y: 15
        theme_text_color: "Custom"
        text_color: "#681D94"
    MDLabel:
        id: available_seats_1
        text: "Available Seats"
        font_size: 14
        halign: 'center'
        pos_hint: {"center_x": 0.65, "center_y": 0.7}

```

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        size_hint_y: None
        height: self.texture_size[1]
        padding_y: 15
        theme_text_color: "Custom"
        text_color: "#681D94"
MDLabel:
    id: fare
    text: "Fare"
    font_size: 14
    halign: 'center'
    pos_hint: {"center_x": 0.8, "center_y": 0.7}
    size_hint_y: None
    height: self.texture_size[1]
    padding_y: 15
    theme_text_color: "Custom"
    text_color: "#681D94"
MDCard:
    size_hint: .7, .25
    focus_behavior: True
    pos_hint: {"center_x": .5, "center_y": .5}
    md_bg_color: "darkgrey"
    unfocus_color: "darkgrey"
    focus_color: "grey"
    elevation: 6
MDFloatLayout:
    MDLabel:
        id: bus_type_1
        text: "HANIF ENTERPRISE"
        font_size: 14
        halign: 'center'
        pos_hint: {"center_x": 0.1, "center_y": 0.75}
        size_hint_y: None
        height: self.texture_size[1]
        padding_y: 15
    MDLabel:
        id: dep_time_1
        text: "8:15 AM"
        font_size: 13
        halign: 'center'
        pos_hint: {"center_x": 0.28, "center_y": 0.75}
        size_hint_y: None
        height: self.texture_size[1]
        padding_y: 15
    MDLabel:
        id: arr_time_1
        text: "1:15 PM"
        font_size: 13

```

```

        halign: 'center'
        pos_hint: {"center_x": 0.5, "center_y": 0.75}
        size_hint_y: None
        height: self.texture_size[1]
        padding_y: 15
MDLabel:
    id: available_seats_1
    text: "40"
    font_size: 13
    halign: 'center'
    pos_hint: {"center_x": 0.7, "center_y": 0.75}
    size_hint_y: None
    height: self.texture_size[1]
    padding_y: 15
MDLabel:
    id: fare_1
    text: "650/-"
    font_size: 13
    halign: 'center'
    pos_hint: {"center_x": .93, "center_y": 0.75}
    size_hint_y: None
    height: self.texture_size[1]
    padding_y: 15
MDRoundFlatButton:
    text: "View Seats"
    font_size: 13
    pos_hint: {"center_x":.5, "center_y": 0.4}
MDCard:
    size_hint: .7, .25
    focus_behavior: True
    pos_hint: {"center_x": .5, "center_y": .23}
    md_bg_color: "darkgrey"
    unfocus_color: "darkgrey"
    focus_color: "grey"
    elevation: 6
MDFloatLayout:
    MDLabel:
        id: bus_type_2
        text: "ROYAL EXPRESS"
        font_size: 14
        halign: 'center'
        pos_hint: {"center_x": 0.1, "center_y": 0.75}
        size_hint_y: None
        height: self.texture_size[1]
        padding_y: 15
    MDLabel:
        id: dep_time_2

```

```
        text: "2:15 PM"
        font_size: 13
        halign: 'center'
        pos_hint: {"center_x": 0.28, "center_y": 0.75}
        size_hint_y: None
        height: self.texture_size[1]
        padding_y: 15
MDLabel:
    id: arr_time_2
    text: "10:15 PM"
    font_size: 13
    halign: 'center'
    pos_hint: {"center_x": 0.5, "center_y": 0.75}
    size_hint_y: None
    height: self.texture_size[1]
    padding_y: 15
MDLabel:
    id: available_seats_2
    text: "20"
    font_size: 13
    halign: 'center'
    pos_hint: {"center_x": 0.7, "center_y": 0.75}
    size_hint_y: None
    height: self.texture_size[1]
    padding_y: 15
MDLabel:
    id: fare_2
    text: "650/-"
    font_size: 13
    halign: 'center'
    pos_hint: {"center_x": .93, "center_y": 0.75}
    size_hint_y: None
    height: self.texture_size[1]
    padding_y: 15
MDRoundFlatButton:
    text: "View Seats"
    font_size: 13
    pos_hint: {"center_x": .5, "center_y": 0.4}
```

Output of the above codes:



Fig: Homepage

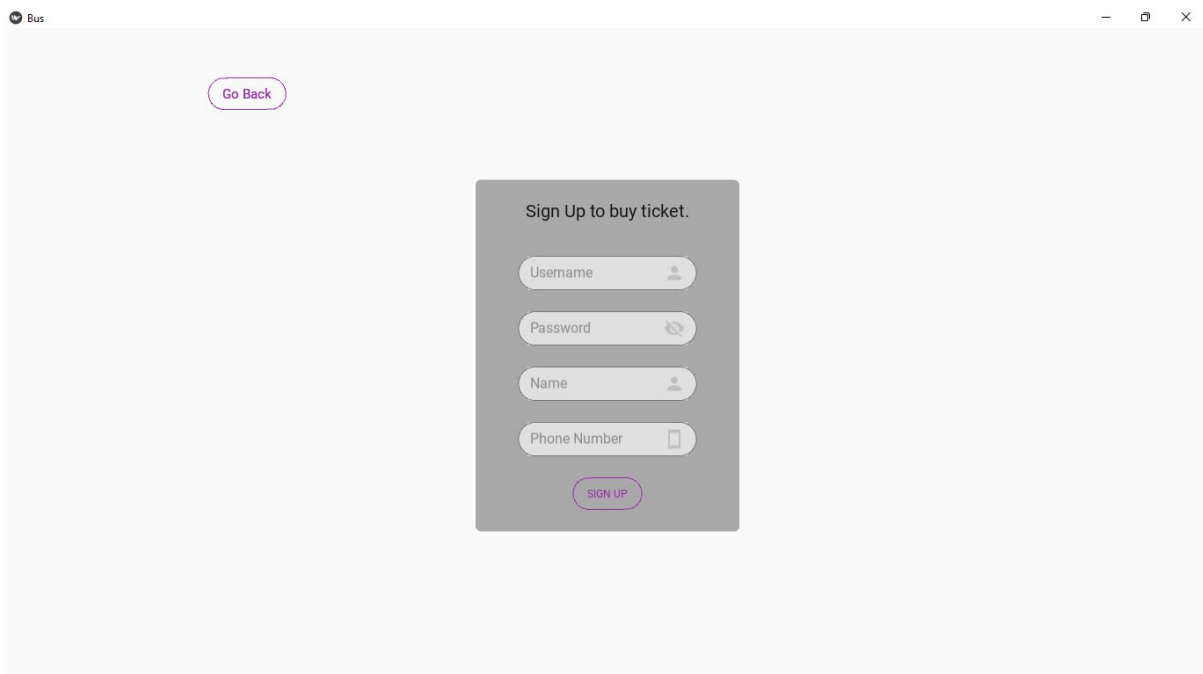


Fig: Signup Page

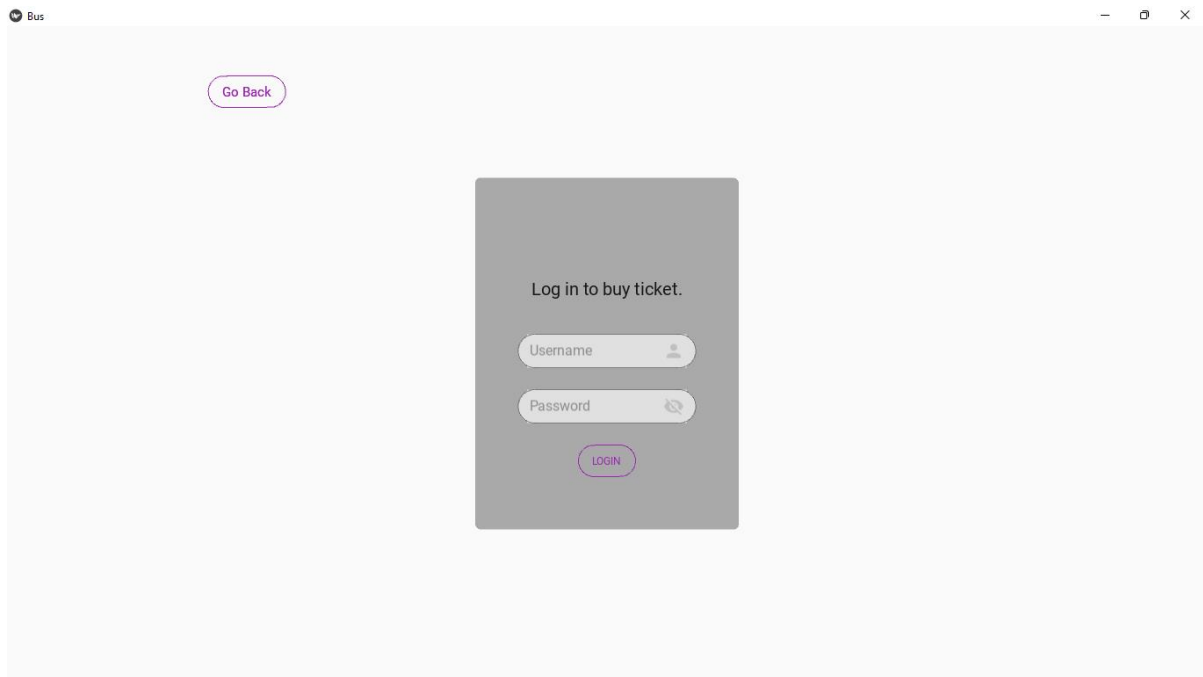


Fig: Login Page

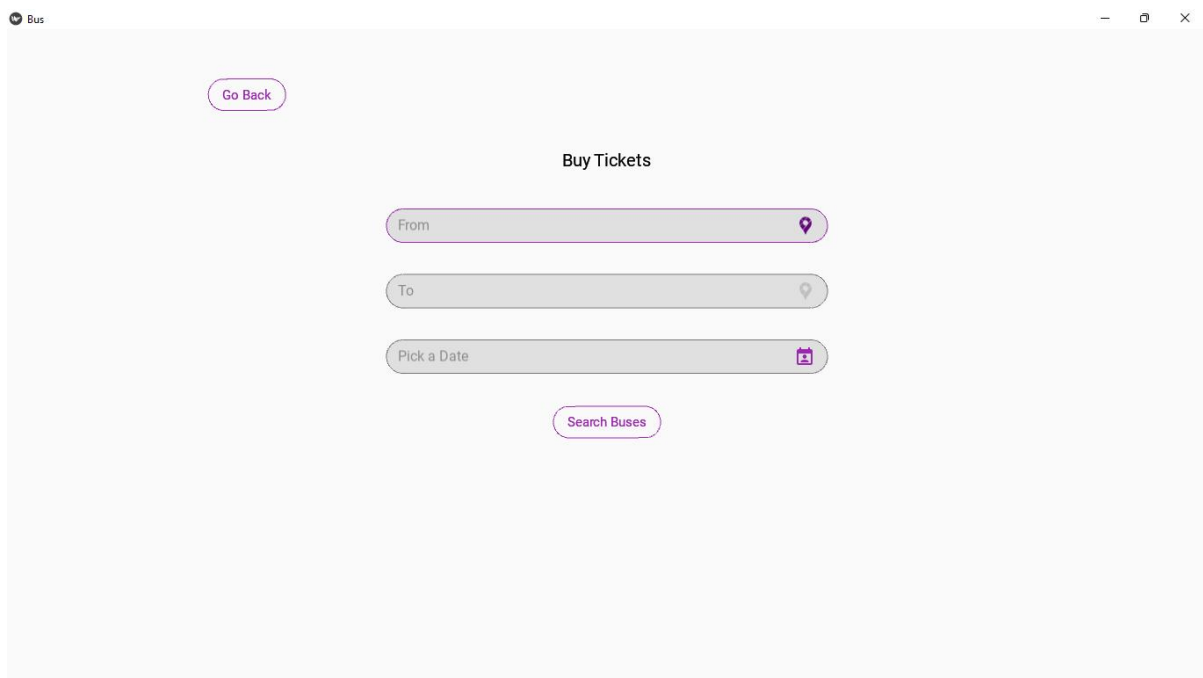


Fig: Buy Ticket Page

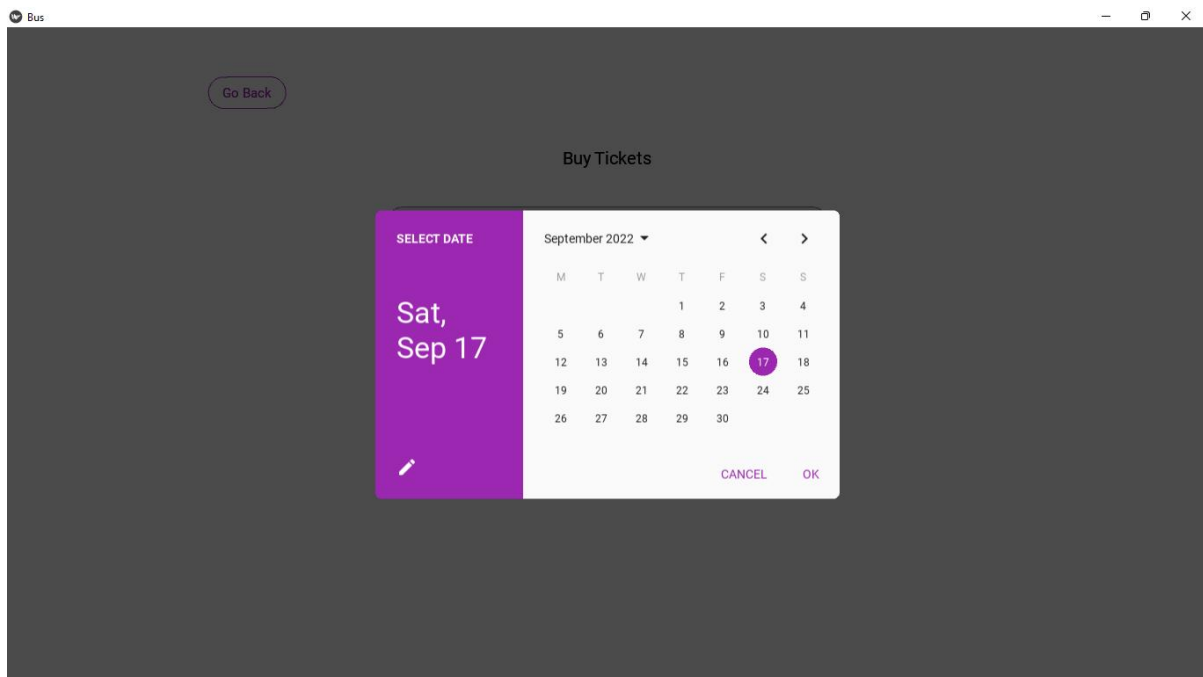


Fig: The Date Picker

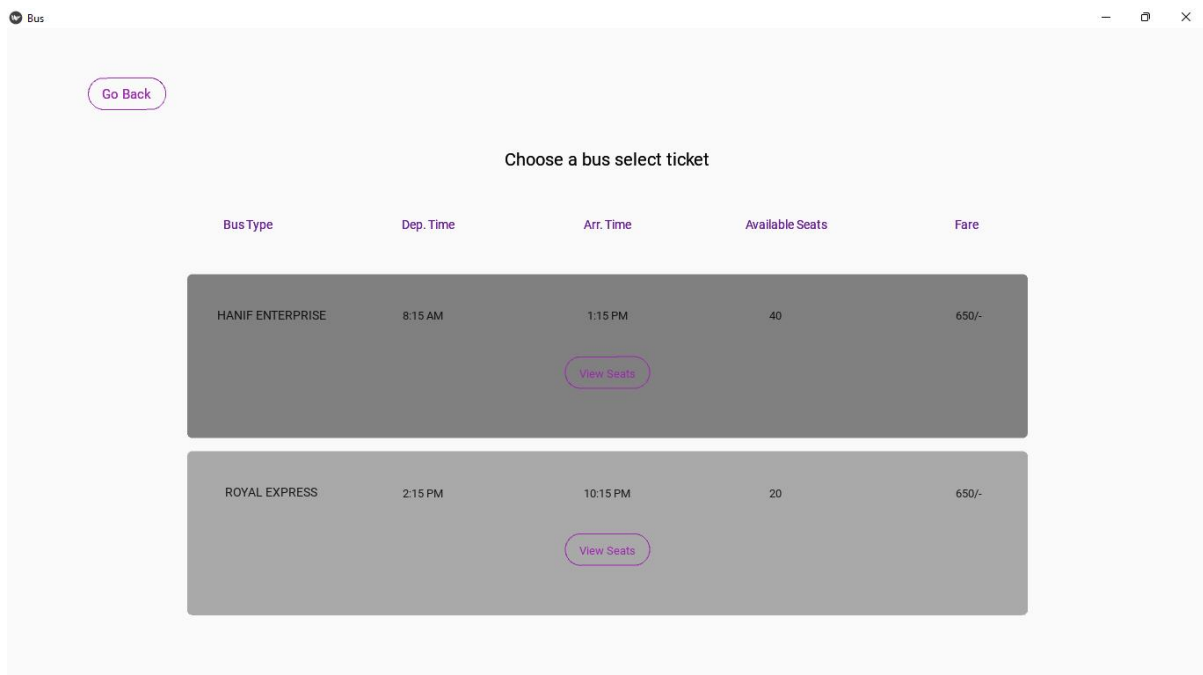


Fig: List of available Buses Page