

Abstract	
travel.Travel	
SingleTravel, Itinerary	
Final arrival date and time Starting departure date and time Origin Destination Total cost Total travel time Format times into string representations	TimeFormat

Abstract	
travel.SingleTravel	
Travel, Identifiable, Updatable Flight, Coach, Ferry, Railroad	
Unique ID (number) Capacity Provider (airline)	

travel.Flight	
SingleTravel	
Create displayable representation	

<div>IdentifiableMap</div> <div>database.TravelDatabase</div>	
Get travel by ID Search travels by time, origin, destination Add travel information Update travel information	SingleTravel

<div>SingleTravel</div> <div>travel.Ferry</div>	
Create displayable representation	

<div>SingleTravel</div> <div>travel.Railroad</div>	
Create displayable representation	

<div> <div>SingleTravel</div> <div>travel.Coach</div> </div>	
Create displayable representation	

<div> <div>database.MainDatabase</div> </div>	
Map all TravelType to TravelDatabase Search all travels by time, origin, destination Search itineraries by time, origin, destination Search users by email or name Get travel information by ID or origin Get user information by ID Order search results (by time or cost)	UserDatabase TravelDatabase TravelType UserType Constants Itinerary

<div> <div>Travel</div> <div>travel.Itinerary</div> </div>	
Sequence of trips Add a trip to the sequence Calculate total cost Calculate travel time Copy to another Itinerary Validate itinerary path	SingleTravel

Abstract		Identifiable	
users.User			
		RegisteredUser, GuestUser	
Unique Identifier Privileges (Accessible information) Name		UserType	

<div>users.GuestUser</div> <div>User</div>	
Identifier (Guest) Privileges (Lowest level)	UserType

Abstract		User, Updatable	
users.RegisteredUser			
		Client, Administrator	
Password (Encrypted) First names, last name Address Credit card number, expiry date Book Itinerary Remove booked Itinerary List booked Itineraries		Itinerary TimeFormat	

<div>RegisteredUser</div> <div>users.Client</div>	
Privileges (client)	UserType

<div>RegisteredUser</div> <div>users.Administrator</div>	
Privileges (admin)	UserType

<div>RegisteredUser</div> <div>users.Moderator</div>	
Privileges (moderator)	UserType

<div>IdentifiableMap</div> <div>database.UserDatabase</div>	
Get user by Email Register a new user Search users by email or name	RegisteredUser SaveOperations

<div>Enum</div> <div>users.UserType</div> <div>LineParse</div>	
List privilege constants for each user subclass Create user subclass by privilege	Client Administrator Moderator Privileges

<div>Enum</div> <div>travel.TravelType</div> <div>LineParse</div>	
List all travel classes Create Travel subclasses by type	Flight

project.UserControl	
Load data on start Log in with Email and Password Register a new User Save data on close Allow access to database, by privilege Store user preferences	User RegisteredUser UserDatabase MainDatabase SaveOperations InputOperations DatabaseOperations Privileges UserType SaveService

Enum travel.TravelComparator	
Order Travel by multiple fields Order in descending or ascending order	Travel

io.SaveOperations	
Save all data in main database to storage Load storage data to main database Save storage data to file or Android database Encrypt and decrypt save data Validate loaded data	MainDatabase Itinerary DatabaseOperations

io.InputOperations	
Get travel information from file (input) Get client information from file (input) Encrypt passwords Generate a new random password	MainDatabase RegisteredUser SingleTravel TravelType UserType

Enum util.TimeFormat	
List possible date and time formats Format strings to dates Get string representations from dates	

util.Privileges	
List privilege constants for accessing databases	

util.Constants	
List miscellaneous constants	

Interface	
interfaces.LineParse	
TravelType, UserType	
Allows parsing of objects from a single line	

Interface	
interfaces.Identifiable	
User,SingleTravel	
Uses a unique key identifier Enum type for the class	

Abstract	
database.UniqueMap	
TravelDatabase, UserDatabase	
Uses a unique key identifier to map Identifiable Updates objects if they are already registered	Identifiable Updatable

io.DatabaseOperations	
Save all data to Android database and file Load data from Android database and file	

Interface	
interfaces.Updatable	
RegisteredUser,SingleTravel	
Update fields to another object of the same type	

Abstract <div> <div> project.BaseActivity </div> <div> ForgotActivity, LoginActivity, RegisterActivity, MainActivity, EditUserActivity, EditTravelActivity, SearchTravelActivity, SearchItineraryActivity </div> </div>	
Default options for all activities Create settings menu	

<div> <div> project.SaveService </div> </div>	
Background task for saving data	UserControl

<div> <div> <div> project.login.ForgotActivity </div> <div> BaseActivity </div> </div> </div>	
Set new generated password to user	InputOperations UserControl

<div>BaseActivity</div> <div>project.login.LoginActivity</div>	
Login with email and password Auto login preference Remember email preference Go to register activity Guest login (no credentials) Go to forgot password activity	RegisteredUser GuestUser ForgotActivity MainActivity RegisterActivity UserControl

<div>BaseActivity</div> <div>project.login.RegisterActivity</div>	
Check valid information for registration Add user information into database Login with registered info	UserControl RegisteredUser UserType MainActivity InputOperations

<div>BaseActivity, ItineraryInteractionListener, UserInteractionListener</div> <div>project.main.MainActivity</div>	
Log out Edit user info Upload users and travels to database Search users and go to edit user Go to search travels and itineraries	UserControl SearchUserFragment MainFragment UploadFragment UserInfoFragment EditUserActivity SearchItineraryActivity SearchTravelActivity

<div>BaseActivity, TravelInteractionListener ItineraryInteractionListener</div> <div>project.interact.ViewItineraryActivity</div>	
View itinerary and its list of travels Book or unbook the itinerary	Itinerary ItineraryFragment TravelFragment

project.login.StartActivity	
Makes a start screen that hides and shows itself	SystemUiHider

project.login.SystemUiHider	
Hides an activity	

project.main.MainFragment	
Welcome message for user Fields for searching travels or itineraries	SearchItineraryActivity SearchTravelActivity

project.main.UserInfoFragment	
Editable fields for user info Editable password Display list of booked itineraries	RegisteredUser ItineraryFragment InputOperations

project.main.UploadFragment	
Get file path from user Add info to databases	MainDatabase UserType TravelType

project.main.SearchUserFragment	
Search users by name or email Edit or add a user	UserViewFragment MainDatabase EditUserActivity

<div>BaseActivity, ItineraryInteractionListener</div> project.interact.EditUserActivity	
Edit a user with user input Add a user with user input Book a new itinerary	RegisteredUser ItineraryFragment ViewItineraryActivity UserControl UserType

<div>BaseActivity</div> <div>project.interact.EditTravelActivity</div>	
Edit a travel with user input Add a travel with user input	SingleTravel TravelType UserControl

<div>BaseActivity, TravelInteractionListener</div> <div>project.interact.SearchTravelActivity</div>	
Search travels by user input Sort travels by user input Go to edit a specific travel	TravelFragment SingleTravel EditTravelActivity TravelComparator

<div>BaseActivity, ItineraryInteractionListener</div> <div>project.interact.SearchItineraryActivity</div>	
Search itineraries by user input Sort itineraries by user input Go to view a specific itinerary	ItineraryFragment Itinerary ViewItineraryActivity TravelComparator

<div>Interface</div> <div>project.view.ItineraryInteractionListener</div>	
Does an action when user selects from list	Itinerary

Interface	
project.view.TravelInteractionListener	
Does an action when user selects from list	SingleTravel

Interface	
project.view.UserInteractionListener	
Does an action when user selects from list	RegisteredUser

project.view.TravelFragment	
Display a list of travels	TravelInteractionListener TravelViewAdapter SingleTravel FragmentTouchListener

project.view.UserViewFragment	
Display a list of users	UserInteractionListener UserViewAdapter RegisteredUser FragmentTouchListener

project.view.ItineraryViewAdapter

Holds a list of itineraries

ItineraryInteractionListener
ItineraryViewHolder
Itinerary

project.view.TravelViewAdapter

Holds a list of travels

TravelInteractionListener
TravelViewHolder
SingleTravel

project.view.UserViewAdapter

Holds a list of users

UserInteractionListener
UserViewHolder
RegisteredUser

project.view.ItineraryViewHolder

Links an itinerary to an entry in a list

Itinerary

project.view.TravelViewHolder

Links a travel to an entry in a list

SingleTravel

project.view.UserViewHolder

Links a user to an entry in a list

RegisteredUser

project.view.FragmentTouchListener

Allows for nested scrolling capability

project.view.ItineraryFragment

Display a list of itineraries

ItineraryInteractionListener
ItineraryViewAdapter
Itinerary
FragmentTouchListener