# American Travel Bucket List UML
## Class Diagrams
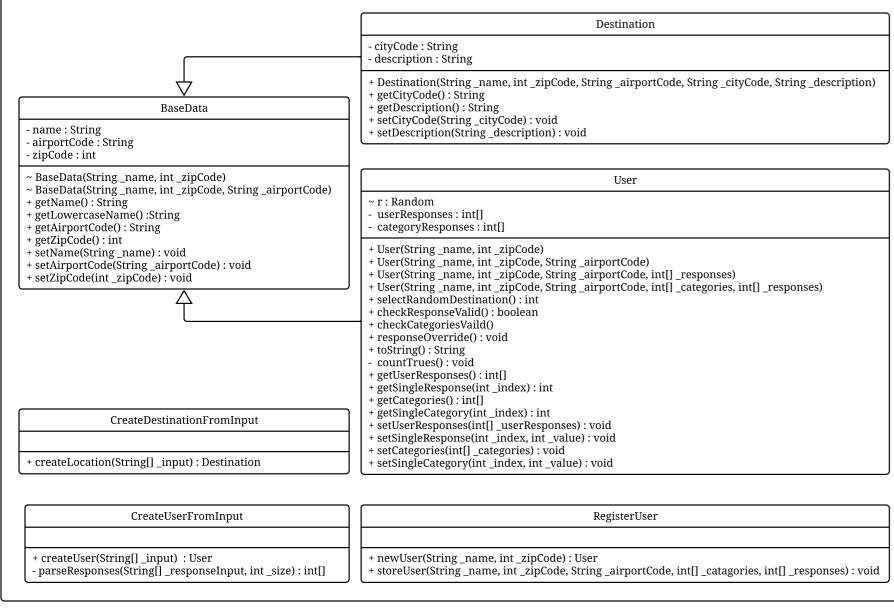
Neo & Wicks Breathtaking Adventure
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## viewPage

### Main

- + currentUser : User
- + destination : Destination
- + count : int
- + startIndex : int
- + registered : boolean
- + selection : int
- + flight : double
- + hotel : double
- - primaryStage : Stage
- - mainLayout : BorderPane
- - MAIN_VIEW_PATH : final String
- - LOGINPAGE_PATH : final String
- - REGISTERPAGE_PATH : final String
- - ABOUTUSPAGE_PATH : final String
- - COTNTACT_US_PATH : final String
- - CATEGORY_PATH : final String
- - LOCATIONS_PATH : final String
- - TRANSITON_PATH : final String
- - FINAL_PATH : final String

- + start(Stage primaryStage) : void
- + FxmlLoader(String _fxmlFilePath) : void
- + showMainView() : void
- + showLogin() : void
- + showRegister() : void
- + showAboutUs() : void
- + showContactUs() : void
- + showCategories() : void
- + loopCategories() : void
- + showVacationTransition() : void
- + showVacationFinal() : void
- + save() : void
- + main(String[] args) : void

### HomeViewController

- - goLoginPage() : void
- - goRegisterPage() : void
- - goAboutUs() :void
- - goContactUs() : void

### AboutUsController

- - aboutUsCancel() : void

### contactUsController

- - fullNameField : TextField
- - emailAddressField : TextField
- - companyField : TextField
- - messageField : TextField

- - showFullName() : void
- - showEmailField() : void
- - showNameCompanyField() : void
- - showMessageField() : void
- - goHome() : void

### LoginController

- - fullNameLoginField : TextField

- - loginPageCancel() : void
- - loginLoginBtn() : void

### RegisterController

- - fullNameRegField : TextField

- - goHome() : void
- - registerNewUser() : void

### NewUserCategoriesController

- - OutdoorInterested : RadioButton
- - EntertainmentInterested : RadioButton
- - EducationalInterested : RadioButton
- - HistoricalInterested : RadioButton
- - CulturalIntereseted : RadioButton

- - SubmitResponses() : void

### NewUserLocationsController

- - categoryName : Label
- - location0 : Label
- - location1 : Label
- - location2 : Label
- - location3 : Label
- - location4 : Label
- - location0Selection1 : RadioButton
- - location0Selection3 : RadioButton
- - location1Selection1 : RadioButton
- - location1Selection3 : RadioButton
- - location2Selection1 : RadioButton
- - location2Selection3 : RadioButton
- - location3Selection1 : RadioButton
- - location3Selection3 : RadioButton
- - location4Selection1 : RadioButton
- - location4Selection3 : RadioButton

- - initialize() : void
- - submitResponses() : void

### VacationTransitionController

- - displayText : Label

- - initialize() : void
- - save() : void
- - selectDestination() : void
- - loadLocation(String _name) : void
- - getFlightAndHotel() : void

### VacationFinalController

- - locationName : Label
- - flightCost : Label
- - hotelPrice : Label
- - description : Label

- - initialize() : void
- - acceptDestination() : void
- - save() : void

## Models

### Destination

- - cityCode : String
- - description : String

- + Destination(String _name, int _zipCode, String _airportCode, String _cityCode, String _description)
- + getCityCode() : String
- + getDescription() : String
- + setCityCode(String _cityCode) : void
- + setDescription(String _description) : void

### BaseData

- - name : String
- - airportCode : String
- - zipCode : int

- ~ BaseData(String _name, int _zipCode)
- ~ BaseData(String _name, int _zipCode, String _airportCode)
- + getName() : String
- + getLowercaseName() :String
- + getAirportCode() : String
- + getZipCode() : int
- + setName(String _name) : void
- + setAirportCode(String _airportCode) : void
- + setZipCode(int _zipCode) : void

### User

- ~ r : Random
- - userResponses : int[]
- - categoryResponses : int[]

- + User(String _name, int _zipCode)
- + User(String _name, int _zipCode, String _airportCode)
- + User(String _name, int _zipCode, String _airportCode, int[] _responses)
- + User(String _name, int _zipCode, String _airportCode, int[] _categories, int[] _responses)
- + selectRandomDestination() : int
- + checkResponseValid() : boolean
- + checkCategoriesVaild()
- + responseOverride() : void
- + toString() : String
- - countTrues() : void
- + getUserResponses() : int[]
- + getSingleResponse(int _index) : int
- + getCategories() : int[]
- + getSingleCategory(int _index) : int
- + setUserResponses(int[] _userResponses) : void
- + setSingleResponse(int _index, int _value) : void
- + setCategories(int[] _categories) : void
- + setSingleCategory(int _index, int _value) : void

### CreateDestinationFromInput

- + createLocation(String[] _input) : Destination

### CreateUserFromInput

- + createUser(String[] _input) : User
- - parseResponses(String[] _responseInput, int _size) : int[]

### RegisterUser

- + newUser(String _name, int _zipCode) : User
- + storeUser(String _name, int _zipCode, String _airportCode, int[] _catagories, int[] _responses) : void

## API

### APITranslator

- - AMADEUS : final int = 1
- - DEV : final int = 2
- - CURRENT_FLIGHT_API : final int
- - CURRENT_HOTEL_API : final int
- - CURRENT_AIRPORT_API : final int

- + getExpectedFlightCost(String _originAirport, String _destinationAirport, String _departureDate) : double
- + falloverFlightAPI(String _originAirport, String _destinationAirport, String _departureDate) : double
- + getExpectedHotelCost(String _cityCode) : double
- + falloverHotelAPI(String _cityCode) : double
- + getAirportCode(double _latitude, double _longitude) : double

### AmadeusAPI

- - AMADEUS_ID : final String
- - AMADEUS_SECRET : final String
- - AMADEUS : final Amadeus

- ~ getExpectedFlightCost(String _originAirport,  String _destinationAirport, String _departureDate) : double
- ~ getExpectedHotelCost(String _citycode) : double
- ~ getAirportCode(double _latitude, double _longitude) : String

### DevAPI

- + getBlackboxResult(int _testType, String _code) : String
- ~ getExpectedFlightCost(String _originAirport, String _destinationAirport, String _departureDate) : double
- ~ getExpectedHotelCost(String _citycode) : double
- ~ getAirportCode(double _latitude, double _longitude) : String
- ~ getRange(String _filepath, String _code) : double[]
- - blackboxTesting1(String _airportCode) : String
- - blackboxTesting2(String _cityCode) : String

## Enumeration

### Enumeration

- + TRUE : final int = 1
- + FALSE : final int = 0
- + EMPTY : final int = -1
- + ORIGIN : final String
- + DESTINATION : final String
- + DEPARTURE_DATE : final String
- + TEST_DATE : final String
- + INPUT_SPLIT : final String
- + RESPONSE_SPLIT : final String
- + ARRAY_START : final int
- + DATA_ARRAY_NAME : final int
- + DATA_ARRAY_ZIP : final int
- + DATA_ARRAY_AIRPORT : final int
- + DATA_ARRAY_CITY : final int
- + DATA_ARRAY_RESPONSES : final int
- + DATA_ARRAY_CATAGORIES : final int
- + DATA_ARRAY_DESCRIPTION : final int
- + STRING_ARRAY_START : final int
- + AVERAGE_SAMPLE_SIZE : final int
- + NUMBER_OF_LOCATIONS : final int
- + RESPONSE_ARRAY_SIZE : final int
- + CATEGORY_ARRAY_SIZE : final int
- + LOCATIONS_PER_CATEGORY : final int
- + USER_FILEPATH : final String
- + LOCATION_FILEPATH : final String
- + HOTEL_RANGE_FILEPATH : final String
- + FLIGHT_RANGE_FILEPATH : final String
- + TXT : final String
- + OUTDOOR_ADVENTURES : final int
- + ENTERTAINMENT : final int
- + EDUCATIONAL_ENTERTAINMENT : final int
- + CULTURAL : final int
- + HISTORICAL : final int
- + CURRENT_CATEGORIES : final String[]
- + CURRENT_LOCATION_FILENAMES : final String[]
- + CURRENT_LOCATION_NAMES : final String[]
- + FLIGHT_TESTING : fiinal int
- + HOTEL_TESTING : final int

## Database

### DatabaseTranslator

- - TEXT : final int = 1
- - CURRENT_USER_DATA : final int
- - CURRENT_LOCATION_DATA : final int
- - CURRENT_ZIP_DATA

- + getUserData(String _name) : String
- + getUserLocations(String _name) : String
- + mapFilename(String _name, int _index) : String
- + getLocationData(String _name) : String
- + getLocationFromZip(int _zip) : double[]
- + storeUserData(String _name, String _output) : void
- + checkUser(String _name) : boolean
- - convertName(String _name) : String

### LoadData

- ~ loadData(String _FilepathStub, String _name) : String
- ~ loadUserLocations(String _name) : String
- ~ mapFilename(String _name, int _index) : String
- ~ checkUser(String _name) : boolean

### StoreData

- writeFile(String _name, String _output) : void

### FindLocationFromZip

- ~ getLatandLong(int _zip) : double[]

## Testing

### BlackboxTestingClass

- + main(String[] args) : void
- - blackboxTesting1(User _user, ArrayList _correct) : String