**Trip Sorter**

**Description**: This api will allow boarding cards of different types to be sorted so as to produce a list of sorted cards

**Assumption** : All Cards must have a from location and to location. A set of given cards must be sort able or else the API will throw an exception error

**Classes and Interfaces:**

1.abstract Card: This class is an abstract Card class and all kinds of cards must extend from this class

2. Class Bus: This class represents the Boarding card for a Bus This class extends the Card abstract class

3. Class FactoryCard: This class is a factory class and its responsible to create the correct card instance based on the card data provided

4. Class Metro : This class will represent card for metro It extends the Card abstract class

5. Class Plane: This class represents Cards /Boarding Cards for a Plane It extends the Card abstract class

6. TravelSummary : This Class is responsible in producing a travel summary with all the cards arranged in the correct order.

7. travelSummaryInterface :This interface function contains all the basic methods needed to created a sorted card list

8.FactoryCardTest : This is a PHPUnit test class for the Factory Card Class

9. TravelSummaryTest: This is a PHPUnit test class for the TravelSummary

Running PHP test scripts

1. phpunit TravelSummaryTest

2. phpunit FactoryCardTest

Running the API

include\_once "../autoload.php";

$cardList = [["desc"=>"Flight from Dubai Airport to Dabolim Airport Goa ",

"fromPoint"=>"Dubai Airport",

"toPoint"=>"Goa Airport",

"mode"=>"Plane",

"seatNo"=>"F43434"

],["desc"=>"Metro from Internet City to Bur Dubai bus stop ",

"fromPoint"=>"International City",

"toPoint"=>"Bur Dubai Stopww",

"mode"=>"Metro",

"seatNo"=>"663434"

],["desc"=>"Dabolim Airport Goa to Malaysia Airport",

"fromPoint"=>"Goa Airport",

"toPoint"=>"Malaysia Airport",

"mode"=>"Plane",

"seatNo"=>"97der"

],["desc"=>"Bus pick up from Bur Dubai to Dubai Airport",

"fromPoint"=>"Bur Dubai Stop",

"toPoint"=>"Dubai Airport",

"mode"=>"Bus",

"seatNo"=>"3W332"

]];

$factoryCard = new \classes\FactoryCard();

$cardReturn = $factoryCard->getCards($cardList);

$travelSummary = new \classes\TravelSummary();

$travelSummary->setCardList($cardReturn);

try {

$processedList = $travelSummary->getTravelSummary();

}

catch (\Exception $e) {

echo 'Caught exception: ', $e->getMessage(), "\n";

die();

}