### **TEST REPORT**

### Unit Test REPORT PASS

Whole output available in UnitTestOut.txt

### BookingClasses

Check for correct working of polymorphic hierarchy
 Check for correct working of output streaming operator

PASS

### BookingClassTypes<T>

Where T -> ACFirstClassType, ExecutiveChairCarType, AC2TierType, FirstClassType, AC3TierType, ACChairCarType, SleeperType, SecondSittingType

• Check for correct working of all simple member functions

0	GetLoadFactor()	PASS
0	GetName()	PASS
0	IsAC()	PASS
0	IsLuxury()	PASS
0	IsSitting()	PASS
0	GetNumberOfTiers()	PASS
0	GetReservationCharge()	PASS
0	GetTatkalLoadFactor()	PASS
0	GetMinTatkalCharge()	PASS
0	GetMaxTatkalCharge()	PASS
0	GetMinTatkalDist()	PASS

Check for correct working of output streaming operator

PASS

### BookingCategory

Check for correct working of polymorphic hierarchy
 PASS

Check for correct working of output streaming operator PASS

 Check for correct working of ReserveInCategory(), i.e., whether it returns NULL/non-NULL appropriately

PASS

### BookingCategoryTypes<T>

Check for correct working of BookingCategory::General::Eligibility()

1. Exception when Date of Reservation after Date of Booking PASS

2. Exception when Date of Reservation more than an year before Booking PASS

3. No Exception when all cases above are dissatisfied PASS

Check for correct working of BookingCategory::Ladies::Eligibility()

Exception when Date of Reservation after Date of Booking PASS

	2.	Exception when Date of Reservation more than an year before Bo	oking	PASS
	3.	Exception when passenger is Male more than 12 years of age		<b>PASS</b>
	4.	No Exception when all cases above are dissatisfied	PASS	
•	Check	for correct working of BookingCategory::SeniorCitizen::Eligibility()		
	1.	Exception when Date of Reservation after Date of Booking	PASS	
	2.	Exception when Date of Reservation more than an year before Bo	oking	PASS
	3.	Exception when passenger is Male less than 60 years of age		PASS
	4.	Exception when passenger is Female less than 58 years of age		PASS
	5.	No Exception when all cases above are dissatisfied	PASS	
•	Check	for correct working of BookingCategory::DivyaangCat::Eligibility()		
	1.	Exception when Date of Reservation after Date of Booking	PASS	
	2.	Exception when Date of Reservation more than an year before Bo	oking	PASS
	3.	Passenger with Divyaang Id and/or Divyaang id absent	PASS	
	4.	No Exception when all cases above are dissatisfied		
•	Check	for correct working of BookingCategory::Tatkal::Eligibility()	PASS	
	1.	Exception when Date of Reservation after Date of Booking	PASS	
	2.	Exception when Date of Reservation more than an year before Bo	oking	PASS
	3.	Reservation done more than 1 day before actual booking timings	PASS	
	4.	No Exception when all cases above are dissatisfied	PASS	
•	Check	$for\ correct\ working\ of\ BookingCategory:: Premium Tatkal: Eligibility ()$	PASS	
	1.	Exception when Date of Reservation after Date of Booking	PASS	
	2.	Exception when Date of Reservation more than an year before Bo	oking	PASS
	3.	Reservation done more than 1 day before actual booking timings	PASS	
	4.	No Exception when all cases above are dissatisfied	PASS	
•	Check	for correct working of output streaming operator	PASS	

### Booking

• Check for correct working of Reserve

Booking correctly constructed for Ladies Booking
 Booking correctly constructed for Tatkal Booking
 Exception thrown when fromStation = toStation
 Check for correct working of output streaming operator

PASS
PASS

### BookingTypes<T>

- Check for correct working of BookingCategory::General::CheckEligibility() (One valid and one invalid case)

  PASS
- Check for correct working of BookingCategory::Ladies::CheckEligibility() (One valid and one invalid case)
- Check for correct working of BookingCategory::SeniorCitizen::CheckEligibility()(One valid and one invalid case)
- Check for correct working of BookingCategory::DivyaangCat::CheckEligibility()(One valid and one invalid case)

  PASS

- Check for correct working of BookingCategory::Tatkal::CheckEligibility()(One valid and one invalid case)
- Check for correct working of BookingCategory::PremiumTatkal:CheckEligibility()(One valid and one invalid case)
- Check for correct working of BookingCategory::General::ComputeFare()(One valid and one invalid case)
- Check for correct working of BookingCategory::Ladies::ComputeFare()(One valid and one invalid case)
- Check for correct working of BookingCategory::SeniorCitizen::ComputeFare()(One valid and one invalid case)
- Check for correct working of BookingCategory::DivyaangCat::ComputeFare()(One valid and one invalid case)
- Check for correct working of BookingCategory::Tatkal::ComputeFare()(One valid and one invalid case)
- Check for correct working of BookingCategory::PremiumTatkal:ComputeFare()(One valid and one invalid case)

### Divyaang

- Check for correct working of polymorphic hierarchy PASS
- Check for correct working of output streaming operator PASS

### DisabilityTypes<T>

Check GetDivyaangConcessionFactor iin a way which includes all Disability Types and all Booking Classes at least once

Where T -> BlindType, OrthopaedicallyHandicappedType, CancerPatientType, TBPatientType

- Check GetDivyaangConncessionFactor called by Blind Type for ACFirstClass PASS
- Check GetDivyaangConncessionFactor called by Blind Type for ExecutiveChairCar PASS
- Check GetDivyaangConncessionFactor called by Blind Type for FirstClass PASS
- Check GetDivyaangConncessionFactor called by Blind Type for AC2Tier PASS
- Check GetDivyaangConncessionFactor called by Blind Type for ExecutiveChairCar PASS
- Check GetDivyaangConncessionFactor called by Blind Type for AC3Tier PASS
- Check GetDivyaangConncessionFactor called by OrthopaedicallyHandicapped Type for AC Chair Car
   PASS
- Check GetDivyaangConncessionFactor called by Cancer PatientType for Sleeper PASS

- Check GetDivyaangConncessionFactor called by TBType for Second Sitting PASS
- Check for correct working of output streaming operator PASS

2. Inavlid month (>12)

Gender				
•	Check working of polymorphic hierarchy	PASS		
•	Check for correct working of output streaming operator	PASS		
Gend	erTypes <t></t>			
•	Check GetName() for Male	PASS		
•	Check GetName() for Female	PASS		
•	Check GetTitle() for Male	PASS		
•	Check GetTitle() for Female	PASS		
•	Check for correct working of output stream operator	PASS		
Name				
•	Check for correct working of output streaming operator	PASS		
Б.				
Date				
•	Check for correct working of output streaming operator	PASS		
•	Check Date construction with numbers	PASS		
•	Check copy constructor for Date	PASS		
•	Check if GetDay() returns correct Day	PASS		
•	Check if GetMonth() returns correct Month	PASS		
•	Check if GetYear() returns correct Year	PASS		
•	Check for working of IsLeapYear()	PASS		
	<ol> <li>Non-Leap year not divisible by 100</li> </ol>	PASS		
	2. Non-leap year divisible by 100 but not by 400	PASS		
	3. Leap year divisible by 400	PASS		
	4. Leap year not divisible by 400	PASS		
•	Check if CalculateAge() returns correct Age based on this	year (in	put is taken as first of	
	January to ensure the golden does not change within 1 ye	ear)	PASS	
•	CalculateSpan() working correctly		PASS	
	<ol> <li>when leap years are present in the middle</li> </ol>		PASS	
	2. hen leap years are not present in the middle		PASS	
•	Check Date::Today()	APPLI	CATION TEST	
•	Check operator==		PASS	
	1. When matching		PASS	
	2. When not matching		PASS	
•	Check for correct validation by IsValid() for integer inputs		PASS	
	1. Invalid year (not in 1900-2099)		PASS	
	0 1 11 ( 40)		D4.00	

PASS

	3.	Invalid month (<12)	PASS	
	4.	Invalid Day (<=0)	PASS	
	5.	Invalid Day (29 Days in February in a non-leap year)	PASS	
	6.	Valid Day (29 Days in February in a leap year)	PASS	
	7.	Invalid Day (>30 Days in a month with 30 days)	PASS	
	8.	Invalid Day (>31 Days in a month with 31 days)	PASS	
	9.	No Exceptions when Valid Day		PASS
•	Check	for correct validation by IsValid() for integer inputs	PASS	
	1.	Invalid year (not in 1900-2099)	PASS	
	2.	Inavlid month (>12)	PASS	
	3.	Invalid month (<12)	PASS	
	4.	Invalid Day (<=0)	PASS	
	5.	Invalid Day (29 Days in February in a non-leap year)	PASS	
	6.	Valid Day (29 Days in February in a leap year)	PASS	
	7.	Invalid Day (>30 Days in a month with 30 days)	PASS	
	8.	Invalid Day (>31 Days in a month with 31 days)	PASS	
	9.	No Exceptions when Valid Day		PASS
	10	Invalid Format (Not DD/MM/YYYY format with more chara-	cters)	PASS
	11.	Invalid Format (Not DD/MM/YYYY format with less charac	ters)	PASS
	12	Invalid Format (Non numeric characters present)	PASS	
	13	Invalid Format ('/' not present/replaced)	PASS	
•	Correc	t working of GetDate()	PASS	
	1.	Valid Date - string	PASS	
	2.	Invalid Date - string	PASS	
	3.	Valid Date - Numbers	PASS	
	4.	Invalid Date - Numbers	PASS	

### Station

•	Check for correct working of output streaming operator	PASS
•	Check constructor for Station with const char*	PASS
•	Check constructor for Station with string	PASS
•	Check copy assignment operator for Station	PASS
•	Check copy constructor for Station	PASS
•	Check GetDistances() for Stations	PASS
	One direction	PASS
	<ol><li>Symmetrical opposite direction</li></ol>	PASS
•	Check if GetName works correctly	PASS
•	Check validity of Stations by IsValid()	PASS
	<ol> <li>Exception when Empty Station Name</li> </ol>	PASS
	2. Exception when Station not present in DataBase	PASS

- Check if GetDistances() throws Exceptions when asked for distances between same station PASS
- Check if GetStation() works correctly

1.	Exception thrown for invalid Station	PASS
2.	Returns correct station for valid station	PASS

### Railways

•	Check for Singleton	<b>APPLICATION TEST</b>
•	Check if all correct stations are stored in list of Stations	PASS
•	Check if sDistStations has correct distance between stations (	matching with Golden
	Output)	PASS
•	Check if testObj.GetDistance() returns correct distance between	en stations (matching with
	sDistStations)	PASS
•	Check for symmetric ordering of Stations	PASS
•	Check working of IsValid()	PASS
	1. Duplicate Station should not be in stations database	PASS
	2. Same pair of stations with a given ordering should be in	n distances database
	EXACTLY once	PASS
	3. Both directions of same pair of stations should not be in	n distances database
	PASS	
	4. Pair with same stations should not be present in distan	ces database
	PASS	
•	Check working for GetDistances	

**PASS** 

PASS

### Concessions

Since it is templatized, we do not need to check GetConcessions() for every pair, we make sure all BookingClasses and Booking Types including subtypes of Divyaang are covered.

1. Throws Exception when queried with the same stations

2. Throws Exception when queried with station not in database

•	Check Get Concessions for Blind Type and ACFirstClass	PASS
•	Check Get Concessions for Blind Type and ExecutiveChairCar	PASS
•	Check Get Concessions for Blind Type and FirstClass	PASS
•	Check Get Concessions for Blind Type and AC2Tier	PASS
•	Check Get Concessions for Blind Type and ExecutiveChairCar	PASS
•	Check Get Concessions for Blind Type and AC3Tier	PASS
•	Check Get Concessions for OrthopaedicallyHandicapped Type a	nd AC Chair Car PASS
•	Check Get Concessions for Cancer PatientType and Sleeper	PASS
•	Check Get Concessions for TBType and Second Sitting	PASS
•	Check Get Concessions for General Booking	PASS
•	Check Get Concessions for Ladies Booking	PASS
•	Check Get Concessions for female Senior Citizen	PASS
•	Check Get concessions for male senior citizen	PASS

### GeneralConcession

Testing is a subset of Concessions Testing (included there)

### **VERDICT FROM CONCESSIONS**

### LadiesConcession

Testing is a subset of Concessions Testing (included there)

**VERDICT FROM CONCESSIONS** 

### SeniorCitizenConcession

Testing is a subset of Concessions Testing (included there)

**VERDICT FROM CONCESSIONS** 

### DivyaangConcession

Testing is a subset of Concessions Testing (included there)

**VERDICT FROM CONCESSIONS** 

### Passenger

•	Testing is a passenger is valid	PASS	
	<ol> <li>Exception when both first and last names missing</li> </ol>	PASS	
	2. Valid Naming + aadhar + birthday + mobile no - Middle Name missin	gPASS	
	3. Valid Naming + aadhar + birthday + mobile no - No Name missing	PASS	
	4. Exception when Bad Aadhaar - Not 12 digits	PASS	
	5. Exception when Bad Aadhar - Non numeric		PASS
	6. Exception when Bad Mobile no - non empty with length not 10	PASS	
	7. Exception when Bad Mobile no - non empty with non numeric	PASS	
	8. Mobile Number is valid	PASS	
	9. Exception when Bad Age - Not born yet		PASS
•	testing the overloaded == operator	PASS	
•	Testing GetPassenger - Valid Case	PASS	
•	Testing GetPassenger - InValid Case	PASS	
•	Test Output streaming operator for Passenger	PASS	

# Application Test Report

PASS

Whole output available in ApplicationOut.txt

To be done on DEBUG mode

- Test CONSTRUCTOR for all valid Classes PASS
- Test Singleton Nature for all Singletons

### • Test copy constructor wherever valid PASS

All 3 cases shown below Maintained dependency of

Maintained dependency order so that construction of Singletons is shown properly

Constructor Check of Bookings is shown in the next Segment.

```
-----GENDER-----
```

Gender Abstract Base Class --CONSTRUCTED
Gender = Male--CONSTRUCTED

Gender Abstract Base Class --CONSTRUCTED
Gender = Female--CONSTRUCTED

-----DIVYAANG-----

Abstract Base Class Divyaang --CONSTRUCTED Divyaang = Blind --CONSTRUCTED

Abstract Base Class Divyaang --CONSTRUCTED

Divyaang = Orthopaedically Handicapped --CONSTRUCTED

Abstract Base Class Divyaang --CONSTRUCTED Divyaang = Cancer Patient --CONSTRUCTED

Abstract Base Class Divyaang --CONSTRUCTED Divyaang = TB Patient --CONSTRUCTED

-----PASSENGERS-----

Date = 5/Jan/1900 -- CONSTRUCTED

Name = Oswald Octopus Voodoo --CONSTRUCTED

Date = 9/Apr/2021 --CONSTRUCTED

```
Date = 9/Apr/2021 --DESTRUCTED
Date = 9/Apr/2021 -- CONSTRUCTED
Date = 9/Apr/2021 --DESTRUCTED
Date = 9/Apr/2021 --CONSTRUCTED
Date = 9/Apr/2021 --DESTRUCTED
Date = 9/Apr/2021 -- CONSTRUCTED
Date = 9/Apr/2021 --DESTRUCTED
Date = 9/Apr/2021 -- CONSTRUCTED
Date = 9/Apr/2021 --DESTRUCTED
Passenger =
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
  --CONSTRUCTED
Name = Oswald Octopus Voodoo --DESTRUCTED
Date = 5/Jan/1900 --DESTRUCTED
```

```
Copy Ctor Passenger =
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
--CONSTRUCTED
```

```
Date = 5/Jan/1900 --CONSTRUCTED

Name = Oswald Octopus Voodoo --CONSTRUCTED

Date = 9/Apr/2021 --CONSTRUCTED

Date = 9/Apr/2021 --DESTRUCTED

Date = 9/Apr/2021 --CONSTRUCTED

Date = 9/Apr/2021 --DESTRUCTED

Date = 9/Apr/2021 --CONSTRUCTED

Date = 9/Apr/2021 --CONSTRUCTED

Date = 9/Apr/2021 --DESTRUCTED
```

```
Date = 9/Apr/2021 --CONSTRUCTED
Date = 9/Apr/2021 --DESTRUCTED
Date = 9/Apr/2021 --CONSTRUCTED
Date = 9/Apr/2021 --DESTRUCTED
Passenger =
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Male
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Cancer Patient
DisabilityID = f
  --CONSTRUCTED
Name = Oswald Octopus Voodoo --DESTRUCTED
Date = 5/Jan/1900 --DESTRUCTED
-----DATES-----
Date = 3/Jun/2021 -- CONSTRUCTED
Date = 9/Apr/2021 -- CONSTRUCTED
Date = 9/Apr/2021 -- CONSTRUCTED
-----STATION-----
Station = Kolkata --CONSTRUCTED
Copy Ctor Station = Kolkata --CONSTRUCTED
Station = Delhi --CONSTRUCTED
```

# -----RAILWAYS-----Railways = Stations: 1. Mumbai 2. Bangalore 3. Delhi 4. Chennai 5. Kolkata Distances between Stations: Bangalore - TO - Chennai - 350 KM Delhi - TO - Bangalore - 2150 KM Delhi - TO - Chennai - 2180 KM Delhi - TO - Kolkata - 1472 KM Kolkata - TO - Bangalore - 1871 KM Kolkata - TO - Chennai - 1659 KM Mumbai - TO - Bangalore - 981 KM Mumbai - TO - Chennai - 1338 KM Mumbai - TO - Delhi - 1447 KM Mumbai - TO - Kolkata - 2014 KM --CONSTRUCTED

----NAME-----

Name = Oswald Octopus --CONSTRUCTED

-----DIVYAANG CONCESSION-----

Concessions Parent Class --CONSTRUCTED DivyaangConcession --CONSTRUCTED

-----LADIES CONCESSION-----

Concessions Parent Class -- CONSTRUCTED LadiesConcession-- CONSTRUCTED

# -----SENIOR CITIZEN CONCESSION---- Concessions Parent Class --CONSTRUCTED SeniorCitizenConcession --CONSTRUCTED

Concessions Parent Class --CONSTRUCTED GeneralConcession--CONSTRUCTED

-----DATE----

Date = 1/Jan/2001 -- CONSTRUCTED

Date = 1/Jan/2001 -- CONSTRUCTED

Date = 9/Apr/2021 -- CONSTRUCTED

-----CONCESSIONS-----Concessions Parent Class --CONSTRUCTED

-----BOOKING CLASSES-----

Abstract base class Booking Classes --CONSTRUCTED

Booking Class =

Called From: AC 2 Tier
Travel Class = AC 2 Tier

: Mode: Sleeping

: Comfort: AC : Bunks: 2

: Luxury: No

--CONSTRUCTED

Abstract base class Booking Classes -- CONSTRUCTED

Booking Class =

Called From: AC 3 Tier
Travel Class = AC 3 Tier

: Mode: Sleeping
: Comfort: AC
: Bunks: 3
: Luxury: No

Abstract base class Booking Classes -- CONSTRUCTED

Booking Class =

--CONSTRUCTED

Called From: AC First Class
Travel Class = AC First Class

: Mode: Sleeping : Comfort: AC : Bunks: 2 : Luxury: Yes --CONSTRUCTED

Abstract base class Booking Classes -- CONSTRUCTED

Booking Class =

Called From: AC Chair Car
Travel Class = AC Chair Car

: Mode: Sitting
: Comfort: AC
: Bunks: 0
: Luxury: No
--CONSTRUCTED

Abstract base class Booking Classes -- CONSTRUCTED

Booking Class =

Called From: Sleeper
Travel Class = Sleeper

: Mode: Sleeping
: Comfort: Non-AC

: Bunks: 3 : Luxury: No --CONSTRUCTED

Abstract base class Booking Classes -- CONSTRUCTED

Booking Class =

Called From: Second Sitting
Travel Class = Second Sitting

: Mode: Sitting
: Comfort: Non-AC

: Bunks: 0 : Luxury: No --CONSTRUCTED

Abstract base class Booking Classes --CONSTRUCTED

Booking Class =

Called From: Executive Chair Car
Travel Class = Executive Chair Car

: Mode: Sitting
: Comfort: AC
: Bunks: 0
: Luxury: Yes
--CONSTRUCTED

Abstract base class Booking Classes -- CONSTRUCTED

Booking Class =

Called From: First Class
Travel Class = First Class

: Mode: Sleeping
: Comfort: Non-AC

: Bunks: 2
: Luxury: Yes
--CONSTRUCTED

-----BOOKING CATEGORY-----

```
Booking Category = Senior Citizen --CONSTRUCTED
```

```
Abstract Base Class Booking Category -- CONSTRUCTED Booking Category = Ladies -- CONSTRUCTED
```

```
Abstract Base Class Booking Category -- CONSTRUCTED Booking Category = General -- CONSTRUCTED
```

Abstract Base Class Booking Category -- CONSTRUCTED Booking Category = Divyaang -- CONSTRUCTED

Abstract Base Class Booking Category -- CONSTRUCTED Booking Category = Tatkal -- CONSTRUCTED

Abstract Base Class Booking Category --CONSTRUCTED Booking Category = Premium Tatkal --CONSTRUCTED

### Test if all Bookings are executed correctly PASS

Bookings getting constructed have been shown below -----BOOKING-----

```
Date = 9/Apr/2022 --CONSTRUCTED

Date = 9/Apr/2022 --DESTRUCTED

Copy Ctor Station = Kolkata --CONSTRUCTED

Copy Ctor Station = Delhi --CONSTRUCTED

Copy Ctor Passenger =

-- Passenger Details --

Name = Oswald Octopus Voodoo

Age = 121

Gender = Female

Aadhar Number = 123456789123

Mobile Number = 0123456789

Disability Type = Blind

DisabilityID = e

--CONSTRUCTED
```

```
Abstract Parent Class Booking -- CONSTRUCTED
Booking =
Called from: LadiesBooking
BOOKING SUCCEEDED:
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
-- Booking Details --
PNR Number = 1
From Station = Kolkata
To Station = Delhi
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = Ladies
Travel Class = AC 2 Tier
 : Mode: Sleeping
: Comfort: AC
: Bunks: 2
: Luxury: No
Fare = 2994
 --CONSTRUCTED
Date = 9/Apr/2022 -- CONSTRUCTED
Date = 9/Apr/2022 --DESTRUCTED
Copy Ctor Station = Delhi --CONSTRUCTED
Copy Ctor Station = Kolkata --CONSTRUCTED
Copy Ctor Passenger =
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
  --CONSTRUCTED
Abstract Parent Class Booking -- CONSTRUCTED
```

```
Booking =
Called from: LadiesBooking
BOOKING SUCCEEDED:
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
-- Booking Details --
PNR Number = 2
From Station = Delhi
To Station = Kolkata
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = Ladies
Travel Class = AC 2 Tier
: Mode: Sleeping
 : Comfort: AC
: Bunks: 2
: Luxury: No
Fare = 2994
```

### --CONSTRUCTED

```
Station = Delhi --CONSTRUCTED
Station = Mumbai --CONSTRUCTED
Date = 9/Apr/2022 -- CONSTRUCTED
Date = 9/Apr/2022 -- DESTRUCTED
Copy Ctor Station = Mumbai -- CONSTRUCTED
Copy Ctor Station = Delhi --CONSTRUCTED
Copy Ctor Passenger =
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
  --CONSTRUCTED
```

```
Abstract Parent Class Booking -- CONSTRUCTED
Booking =
Called from: GeneralBooking
BOOKING SUCCEEDED:
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
-- Booking Details --
PNR Number = 3
From Station = Mumbai
To Station = Delhi
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = General
Travel Class = AC 3 Tier
 : Mode: Sleeping
: Comfort: AC
: Bunks: 3
: Luxury: No
Fare = 1849
 --CONSTRUCTED
Station = Mumbai -- DESTRUCTED
Station = Delhi --DESTRUCTED
Station = Delhi --CONSTRUCTED
Station = Mumbai --CONSTRUCTED
Date = 9/Apr/2022 -- CONSTRUCTED
Date = 9/Apr/2022 --DESTRUCTED
Copy Ctor Station = Mumbai --CONSTRUCTED
Copy Ctor Station = Delhi --CONSTRUCTED
Copy Ctor Passenger =
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
```

```
Disability Type = Blind
DisabilityID = e
  --CONSTRUCTED
Abstract Parent Class Booking -- CONSTRUCTED
Booking =
Called from: GeneralBooking
BOOKING SUCCEEDED:
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
-- Booking Details --
PNR Number = 4
From Station = Mumbai
To Station = Delhi
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = General
Travel Class = AC First Class
: Mode: Sleeping
: Comfort: AC
: Bunks: 2
: Luxury: Yes
Fare = 4763
 --CONSTRUCTED
Station = Mumbai --DESTRUCTED
Station = Delhi --DESTRUCTED
Station = Delhi --CONSTRUCTED
Station = Mumbai --CONSTRUCTED
Date = 9/Apr/2022 --CONSTRUCTED
Date = 9/Apr/2021 -- CONSTRUCTED
Date = 9/Apr/2021 -- DESTRUCTED
Date = 9/Apr/2021 -- CONSTRUCTED
```

Date = 9/Apr/2021 --DESTRUCTED
Date = 9/Apr/2021 --CONSTRUCTED
Date = 9/Apr/2021 --DESTRUCTED
Date = 9/Apr/2021 --CONSTRUCTED

```
Date = 9/Apr/2021 --DESTRUCTED
Date = 9/Apr/2022 -- DESTRUCTED
Copy Ctor Station = Mumbai -- CONSTRUCTED
Copy Ctor Station = Delhi --CONSTRUCTED
Copy Ctor Passenger =
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Male
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Cancer Patient
DisabilityID = f
 --CONSTRUCTED
Abstract Parent Class Booking -- CONSTRUCTED
Booking =
Called from: Senior CitizenBooking
BOOKING SUCCEEDED:
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Male
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Cancer Patient
DisabilityID = f
-- Booking Details --
PNR Number = 5
From Station = Mumbai
To Station = Delhi
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = Senior Citizen
Travel Class = AC 3 Tier
 : Mode: Sleeping
: Comfort: AC
 : Bunks: 3
 : Luxury: No
Fare = 1125
 --CONSTRUCTED
Station = Mumbai --DESTRUCTED
Station = Delhi --DESTRUCTED
```

```
Station = Delhi --CONSTRUCTED
Station = Mumbai --CONSTRUCTED
Date = 9/Apr/2022 -- CONSTRUCTED
Date = 9/Apr/2021 -- CONSTRUCTED
Date = 9/Apr/2021 --DESTRUCTED
Date = 9/Apr/2021 -- CONSTRUCTED
Date = 9/Apr/2021 -- DESTRUCTED
Date = 9/Apr/2021 -- CONSTRUCTED
Date = 9/Apr/2021 --DESTRUCTED
Date = 9/Apr/2021 -- CONSTRUCTED
Date = 9/Apr/2021 -- DESTRUCTED
Date = 9/Apr/2022 -- DESTRUCTED
Copy Ctor Station = Mumbai -- CONSTRUCTED
Copy Ctor Station = Delhi --CONSTRUCTED
Copy Ctor Passenger =
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
  --CONSTRUCTED
Abstract Parent Class Booking -- CONSTRUCTED
Booking =
Called from: Senior CitizenBooking
BOOKING SUCCEEDED:
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
-- Booking Details --
PNR Number = 6
From Station = Mumbai
To Station = Delhi
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = Senior Citizen
Travel Class = AC First Class
```

```
: Mode: Sleeping
 : Comfort: AC
 : Bunks: 2
: Luxury: Yes
Fare = 2411
 --CONSTRUCTED
Station = Mumbai -- DESTRUCTED
Station = Delhi --DESTRUCTED
Station = Delhi --CONSTRUCTED
Station = Mumbai --CONSTRUCTED
Date = 9/Apr/2022 -- CONSTRUCTED
Date = 9/Apr/2022 --DESTRUCTED
Copy Ctor Station = Mumbai --CONSTRUCTED
Copy Ctor Station = Delhi --CONSTRUCTED
Copy Ctor Passenger =
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
  --CONSTRUCTED
Abstract Parent Class Booking -- CONSTRUCTED
Booking =
Called from: DivyaangBooking
BOOKING SUCCEEDED:
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
-- Booking Details --
PNR Number = 7
From Station = Mumbai
To Station = Delhi
Travel Date = 9/Apr/2021
```

```
Reservation Date = 9/Apr/2021
Booking Category = Divyaang
Travel Class = AC 3 Tier
 : Mode: Sleeping
: Comfort: AC
: Bunks: 3
 : Luxury: No
Fare = 492
 --CONSTRUCTED
Station = Mumbai --DESTRUCTED
Station = Delhi --DESTRUCTED
Station = Delhi --CONSTRUCTED
Station = Mumbai --CONSTRUCTED
Date = 9/Apr/2022 -- CONSTRUCTED
Date = 9/Apr/2022 --DESTRUCTED
Copy Ctor Station = Mumbai --CONSTRUCTED
Copy Ctor Station = Delhi --CONSTRUCTED
Copy Ctor Passenger =
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Male
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Cancer Patient
DisabilityID = f
  --CONSTRUCTED
Abstract Parent Class Booking -- CONSTRUCTED
Booking =
Called from: DivyaangBooking
BOOKING SUCCEEDED:
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Male
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Cancer Patient
DisabilityID = f
-- Booking Details --
PNR Number = 8
```

```
From Station = Mumbai
To Station = Delhi
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = Divyaang
Travel Class = AC First Class
 : Mode: Sleeping
: Comfort: AC
: Bunks: 2
: Luxury: Yes
Fare = 2411
 --CONSTRUCTED
Station = Mumbai --DESTRUCTED
Station = Delhi --DESTRUCTED
Station = Mumbai --CONSTRUCTED
Station = Delhi --CONSTRUCTED
Date = 9/Apr/2022 -- CONSTRUCTED
Date = 9/Apr/2022 -- DESTRUCTED
Copy Ctor Station = Delhi --CONSTRUCTED
Copy Ctor Station = Mumbai -- CONSTRUCTED
Copy Ctor Passenger =
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
  --CONSTRUCTED
Abstract Parent Class Booking -- CONSTRUCTED
Booking =
Called from: TatkalBooking
BOOKING SUCCEEDED:
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
```

```
DisabilityID = e
-- Booking Details --
PNR Number = 9
From Station = Delhi
To Station = Mumbai
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = Tatkal
Travel Class = AC 3 Tier
: Mode: Sleeping
: Comfort: AC
: Bunks: 3
: Luxury: No
Fare = 2249
 --CONSTRUCTED
Station = Delhi --DESTRUCTED
Station = Mumbai -- DESTRUCTED
Station = Bangalore --CONSTRUCTED
Station = Chennai --CONSTRUCTED
Date = 9/Apr/2022 -- CONSTRUCTED
Date = 9/Apr/2022 -- DESTRUCTED
Copy Ctor Station = Chennai -- CONSTRUCTED
Copy Ctor Station = Bangalore -- CONSTRUCTED
Copy Ctor Passenger =
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
  --CONSTRUCTED
Abstract Parent Class Booking -- CONSTRUCTED
Booking =
Called from: TatkalBooking
BOOKING SUCCEEDED:
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
```

```
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
-- Booking Details --
PNR Number = 10
From Station = Chennai
To Station = Bangalore
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = Tatkal
Travel Class = AC First Class
: Mode: Sleeping
: Comfort: AC
: Bunks: 2
: Luxury: Yes
Fare = 1198
--CONSTRUCTED
Station = Chennai --DESTRUCTED
Station = Bangalore --DESTRUCTED
Station = Bangalore --CONSTRUCTED
Station = Chennai -- CONSTRUCTED
Date = 9/Apr/2022 -- CONSTRUCTED
Date = 9/Apr/2022 -- DESTRUCTED
Copy Ctor Station = Chennai -- CONSTRUCTED
Copy Ctor Station = Bangalore -- CONSTRUCTED
Copy Ctor Passenger =
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
 --CONSTRUCTED
Abstract Parent Class Booking -- CONSTRUCTED
Booking =
Called from: Premium TatkalBooking
BOOKING SUCCEEDED:
-- Passenger Details --
```

```
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
-- Booking Details --
PNR Number = 11
From Station = Chennai
To Station = Bangalore
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = Premium Tatkal
Travel Class = AC First Class
: Mode: Sleeping
: Comfort: AC
 : Bunks: 2
: Luxury: Yes
Fare = 1198
--CONSTRUCTED
Station = Chennai --DESTRUCTED
Station = Bangalore --DESTRUCTED
Station = Mumbai -- CONSTRUCTED
Station = Delhi --CONSTRUCTED
Date = 9/Apr/2022 -- CONSTRUCTED
Date = 9/Apr/2022 -- DESTRUCTED
Copy Ctor Station = Delhi --CONSTRUCTED
Copy Ctor Station = Mumbai -- CONSTRUCTED
Copy Ctor Passenger =
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
  --CONSTRUCTED
Abstract Parent Class Booking -- CONSTRUCTED
Booking =
```

```
Called from: Premium TatkalBooking
  BOOKING SUCCEEDED:
  -- Passenger Details --
  Name = Oswald Octopus Voodoo
  Age = 121
  Gender = Female
  Aadhar Number = 123456789123
  Mobile Number = 0123456789
  Disability Type = Blind
  DisabilityID = e
  -- Booking Details --
  PNR Number = 12
  From Station = Delhi
  To Station = Mumbai
  Travel Date = 9/Apr/2021
  Reservation Date = 9/Apr/2021
  Booking Category = Premium Tatkal
  Travel Class = AC 3 Tier
   : Mode: Sleeping
   : Comfort: AC
   : Bunks: 3
   : Luxury: No
  Fare = 2649
   --CONSTRUCTED
  Station = Delhi --DESTRUCTED
  Station = Mumbai --DESTRUCTED

    Test if List of Bookings is printed correctly

                                        PASS
  List of Bookings getting Printed has been shown below
  -----LIST OF BOOKINGS-----
  BOOKING SUCCEEDED:
  -- Passenger Details --
  Name = Oswald Octopus Voodoo
  Age = 121
  Gender = Female
  Aadhar Number = 123456789123
  Mobile Number = 0123456789
  Disability Type = Blind
  DisabilityID = e
  -- Booking Details --
  PNR Number = 1
  From Station = Kolkata
  To Station = Delhi
```

Travel Date = 9/Apr/2021 Reservation Date = 9/Apr/2021 Booking Category = Ladies Travel Class = AC 2 Tier

: Mode: Sleeping
: Comfort: AC
: Bunks: 2

: Luxury: No

Fare = 2994

### BOOKING SUCCEEDED:

-- Passenger Details --

Name = Oswald Octopus Voodoo

Age = 121

Gender = Female

Aadhar Number = 123456789123

Mobile Number = 0123456789

Disability Type = Blind

DisabilityID = e

-- Booking Details --

PNR Number = 2

From Station = Delhi

To Station = Kolkata

Travel Date = 9/Apr/2021

Reservation Date = 9/Apr/2021

Booking Category = Ladies

Travel Class = AC 2 Tier

: Mode: Sleeping

: Comfort: AC

: Bunks: 2

: Luxury: No

Fare = 2994

### BOOKING SUCCEEDED:

-- Passenger Details --

Name = Oswald Octopus Voodoo

Age = 121

Gender = Female

Aadhar Number = 123456789123

Mobile Number = 0123456789

Disability Type = Blind

DisabilityID = e

-- Booking Details --

PNR Number = 3

From Station = Mumbai

To Station = Delhi

Travel Date = 9/Apr/2021

Reservation Date = 9/Apr/2021

Booking Category = General

Travel Class = AC 3 Tier

: Mode: Sleeping

: Comfort: AC

: Bunks: 3

: Luxury: No

Fare = 1849

### BOOKING SUCCEEDED:

-- Passenger Details --

Name = Oswald Octopus Voodoo

Age = 121

Gender = Female

Aadhar Number = 123456789123

Mobile Number = 0123456789

Disability Type = Blind

DisabilityID = e

-- Booking Details --

PNR Number = 4

From Station = Mumbai

To Station = Delhi

Travel Date = 9/Apr/2021

Reservation Date = 9/Apr/2021

Booking Category = General

Travel Class = AC First Class

: Mode: Sleeping

: Comfort: AC

: Bunks: 2

: Luxury: Yes

Fare = 4763

### BOOKING SUCCEEDED:

-- Passenger Details --

Name = Oswald Octopus Voodoo

Age = 121

Gender = Male

Aadhar Number = 123456789123

Mobile Number = 0123456789

Disability Type = Cancer Patient

DisabilityID = f

-- Booking Details --

PNR Number = 5

```
From Station = Mumbai
To Station = Delhi
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = Senior Citizen
Travel Class = AC 3 Tier
 : Mode: Sleeping
: Comfort: AC
 : Bunks: 3
 : Luxury: No
Fare = 1125
BOOKING SUCCEEDED:
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
-- Booking Details --
PNR Number = 6
From Station = Mumbai
To Station = Delhi
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = Senior Citizen
Travel Class = AC First Class
: Mode: Sleeping
 : Comfort: AC
 : Bunks: 2
 : Luxury: Yes
Fare = 2411
BOOKING SUCCEEDED:
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
```

-- Booking Details --

```
PNR Number = 7
```

From Station = Mumbai

To Station = Delhi

Travel Date = 9/Apr/2021

Reservation Date = 9/Apr/2021

Booking Category = Divyaang

Travel Class = AC 3 Tier

: Mode: Sleeping

: Comfort: AC

: Bunks: 3

: Luxury: No

Fare = 492

### BOOKING SUCCEEDED:

-- Passenger Details --

Name = Oswald Octopus Voodoo

Age = 121

Gender = Male

Aadhar Number = 123456789123

Mobile Number = 0123456789

Disability Type = Cancer Patient

DisabilityID = f

-- Booking Details --

PNR Number = 8

From Station = Mumbai

To Station = Delhi

Travel Date = 9/Apr/2021

Reservation Date = 9/Apr/2021

Booking Category = Divyaang

Travel Class = AC First Class

: Mode: Sleeping

: Comfort: AC

: Bunks: 2

: Luxury: Yes

Fare = 2411

### BOOKING SUCCEEDED:

-- Passenger Details --

Name = Oswald Octopus Voodoo

Age = 121

Gender = Female

Aadhar Number = 123456789123

Mobile Number = 0123456789

Disability Type = Blind

DisabilityID = e

```
-- Booking Details --
PNR Number = 9
From Station = Delhi
To Station = Mumbai
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = Tatkal
Travel Class = AC 3 Tier
 : Mode: Sleeping
 : Comfort: AC
 : Bunks: 3
 : Luxury: No
Fare = 2249
BOOKING SUCCEEDED:
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
-- Booking Details --
PNR Number = 10
From Station = Chennai
To Station = Bangalore
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = Tatkal
Travel Class = AC First Class
 : Mode: Sleeping
: Comfort: AC
 : Bunks: 2
 : Luxury: Yes
Fare = 1198
BOOKING SUCCEEDED:
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
```

```
DisabilityID = e
-- Booking Details --
PNR Number = 11
From Station = Chennai
To Station = Bangalore
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = Premium Tatkal
Travel Class = AC First Class
 : Mode: Sleeping
 : Comfort: AC
 : Bunks: 2
 : Luxury: Yes
Fare = 1198
BOOKING SUCCEEDED:
-- Passenger Details --
Name = Oswald Octopus Voodoo
Age = 121
Gender = Female
Aadhar Number = 123456789123
Mobile Number = 0123456789
Disability Type = Blind
DisabilityID = e
-- Booking Details --
PNR Number = 12
From Station = Delhi
To Station = Mumbai
Travel Date = 9/Apr/2021
Reservation Date = 9/Apr/2021
Booking Category = Premium Tatkal
Travel Class = AC 3 Tier
: Mode: Sleeping
 : Comfort: AC
 : Bunks: 3
 : Luxury: No
Fare = 2649
```

### • Test that program throws expected Exceptions when needed

COVERED EXHAUSTIVELY IN UNIT TESTS VERDICT OF UNIT TESTS

• Test DESTRUCTOR for all valid Classes PASS

(Function/Argument scope Objects were destructed before this phase began, as shows in the previous segments)
Printing in reverse order of construction

# Static destroyed in the end in reverse order of construction Output has been shown below

-----DESTRUCTORS-----Date = 9/Apr/2021 --DESTRUCTED Date = 1/Jan/2001 --DESTRUCTED Date = 1/Jan/2001 -- DESTRUCTED Name = Oswald Octopus --DESTRUCTED Station = Delhi --DESTRUCTED Station = Kolkata --DESTRUCTED Station = Kolkata --DESTRUCTED Date = 9/Apr/2021 --DESTRUCTED Date = 9/Apr/2021 --DESTRUCTED Date = 3/Jun/2021 -- DESTRUCTED Passenger = -- Passenger Details --Name = Oswald Octopus Voodoo Age = 121Gender = MaleAadhar Number = 123456789123Mobile Number = 0123456789Disability Type = Cancer Patient DisabilityID = f--DESTRUCTED Date = 5/Jan/1900 --DESTRUCTED Name = Oswald Octopus Voodoo --DESTRUCTED Passenger = -- Passenger Details --Name = Oswald Octopus Voodoo Age = 121Gender = Female Aadhar Number = 123456789123Mobile Number = 0123456789Disability Type = Blind DisabilityID = e--DESTRUCTED Date = 5/Jan/1900 --DESTRUCTED Name = Oswald Octopus Voodoo --DESTRUCTED Passenger = -- Passenger Details --Name = Oswald Octopus Voodoo Age = 121Gender = Female Aadhar Number = 123456789123Mobile Number = 0123456789Disability Type = Blind DisabilityID = e

## --DESTRUCTED Date = 5/Jan/1900 --DESTRUCTED Name = Oswald Octopus Voodoo --DESTRUCTED Booking Category = Premium Tatkal --DESTRUCTED Abstract Base Class Booking Category -- DESTRUCTED Booking Category = Tatkal --DESTRUCTED Abstract Base Class Booking Category -- DESTRUCTED Booking Category = Divyaang --DESTRUCTED Abstract Base Class Booking Category -- DESTRUCTED Booking Category = General --DESTRUCTED Abstract Base Class Booking Category -- DESTRUCTED Booking Category = Ladies --DESTRUCTED Abstract Base Class Booking Category -- DESTRUCTED Booking Category = Senior Citizen -- DESTRUCTED Abstract Base Class Booking Category -- DESTRUCTED Booking Class = Called From: First Class Travel Class = First Class : Mode: Sleeping : Comfort: Non-AC : Bunks: 2 : Luxury: Yes --DESTRUCTED Abstract Base Class Booking Classes -- DESTRUCTED Booking Class = Called From: Executive Chair Car Travel Class = Executive Chair Car : Mode: Sitting : Comfort: AC : Bunks: 0 : Luxury: Yes --DESTRUCTED Abstract Base Class Booking Classes -- DESTRUCTED Booking Class = Called From: Second Sitting Travel Class = Second Sitting : Mode: Sitting : Comfort: Non-AC : Bunks: 0 : Luxury: No --DESTRUCTED Abstract Base Class Booking Classes -- DESTRUCTED Booking Class = Called From: Sleeper

Travel Class = Sleeper

```
: Mode: Sleeping
 : Comfort: Non-AC
 : Bunks: 3
 : Luxury: No
  --DESTRUCTED
Abstract Base Class Booking Classes -- DESTRUCTED
Booking Class =
Called From: AC Chair Car
Travel Class = AC Chair Car
 : Mode: Sitting
 : Comfort: AC
 : Bunks: 0
 : Luxury: No
  --DESTRUCTED
Abstract Base Class Booking Classes -- DESTRUCTED
Booking Class =
Called From: AC First Class
Travel Class = AC First Class
 : Mode: Sleeping
 : Comfort: AC
 : Bunks: 2
 : Luxury: Yes
  --DESTRUCTED
Abstract Base Class Booking Classes -- DESTRUCTED
Booking Class =
Called From: AC 3 Tier
Travel Class = AC 3 Tier
 : Mode: Sleeping
 : Comfort: AC
 : Bunks: 3
 : Luxury: No
  --DESTRUCTED
Abstract Base Class Booking Classes -- DESTRUCTED
Booking Class =
Called From: AC 2 Tier
Travel Class = AC 2 Tier
 : Mode: Sleeping
 : Comfort: AC
 : Bunks: 2
 : Luxury: No
  --DESTRUCTED
Abstract Base Class Booking Classes -- DESTRUCTED
Concessions Parent Class -- DESTRUCTED
GeneralConcession -- DESTRUCTED
Concessions Parent Class -- DESTRUCTED
```

SeniorCitizenConcession -- DESTRUCTED Concessions Parent Class -- DESTRUCTED LadiesConcession --DESTRUCTED Concessions Parent Class -- DESTRUCTED DivyaangConcession --DESTRUCTED Concessions Parent Class -- DESTRUCTED Railways = Stations: 1. Mumbai 2. Bangalore

- 3. Delhi
- 4. Chennai
- 5. Kolkata

```
Distances between Stations:
```

```
Bangalore - TO - Chennai - 350 KM
Delhi - TO - Bangalore - 2150 KM
Delhi - TO - Chennai - 2180 KM
```

Delhi - TO - Kolkata - 1472 KM

Kolkata - TO - Bangalore - 1871 KM

Kolkata - TO - Chennai - 1659 KM

Mumbai - TO - Bangalore - 981 KM

Mumbai - TO - Chennai - 1338 KM

Mumbai - TO - Delhi - 1447 KM

Mumbai - TO - Kolkata - 2014 KM

### --DESTRUCTED

Divyaang = TB Patient --DESTRUCTED

Abstract Base Class Divyaang -- DESTRUCTED

Divyaang = Cancer Patient --DESTRUCTED

Abstract Base Class Divyaang --DESTRUCTED

Divyaang = Orthopaedically Handicapped --DESTRUCTED

Abstract Base Class Divyaang -- DESTRUCTED

Divyaang = Blind --DESTRUCTED

Abstract Base Class Divyaang --DESTRUCTED

Gender = FemaleDestructor

Gender Abstract Base Class -- DESTRUCTED

Gender = MaleDestructor

Gender Abstract Base Class -- DESTRUCTED