**Input:**

CreateRoute AliceSprings Adelaide Melbourne Sydney Bristbane

CreateRoute AliceSprings Adelaide Bristbane

CreateRoute Darwin AliceSprings Perth

CreateRoute Adelaide Sydney Bristbane

CreateRoute AliceSprings Adelaide Melbourne Sydney

CreateRoute Melbourne Sydney Bristbane

CreateRoute Adelaide Melbourne Sydney

ViewRoute 1

end

**Output**:

Route with ID: 1 has been created!

Route with ID: 2 has been created!

Route with ID: 3 has been created!

Route with ID: 4 has been created!

Route with ID: 5 has been created!

Route with ID: 6 has been created!

Route with ID: 7 has been created!

RouteID: 1

Route status: Open

Route locations: AliceSprings (24/02 Saturday @ 06:00) → Adelaide 24/02 Saturday @ 23:00 → Melbourne 25/02 Sunday @ 07:00 → Sydney 25/02 Sunday @ 17:00 → Bristbane 26/02 Monday @ 03:00

Route total distnce: 4041 km

Route capacity: Capacity is still uncalculated.

Route start date: 18/02 Sunday @ 06:00

Route final ETA: 24/02 Saturday @ 23:00

PackageID: Package is still unassigned.

TruckID: Truck is still unassigned.

**Input:** CreateRoute AliceSprings Adelaide Melbourne Sydney Bristbane

**Output**: Route with ID: 1 has been created!

**Input:** ViewRoute RouteId

**Output**:

RouteID: 25

Route status: **open - >** **default message – changes when packages assigned to route, and depends on the current date**

Route locations: Alice Spring (10/02 Saturday @ 06:00) → Adelaide (10/02 Saturday @ 20:00) → Sydney (11/02 Sunday @ 18:00) -> Melbourne (12/02 Monday @ 14:00) -> Brisbane (13/02 Tuesday @ 14:00)

Route distance: 4041 km

Route capacity: **Capacity is still uncalculated. - >** **default message – changes when packages assigned to route from hub**

Route start date: 10/02 Saturday @ 06:00

Route final ETA: 13/02 Tuesday @ 14:00

PackageID: **Package is still unassigned. - >** **default message – changes when packages assigned to route from hub**

TruckID: **Truck is still unassigned. - >** **default message – changes validation passes route capacity < truck capacity; route distance < truck max range, truck availability between route start date and route final ETA**

**Input:** RegisterCustomer steven1 [steven\_jones1@gmail.com](mailto:steven_jones1@gmail.com) steven jones ***(4 params)***

**Output:** Customer with username: steven1 has been registered!

**Input:** CreatePackage AliceSprings Adelaide weight ***(3 params)***

**Output:** Package with ID: 21 has been created!

**Input:** ViewPackage IdPackage ***(1 param)***

**Output:**

PackageID: 21

Package weight: 45 kg

Package start location: Alice Springs

Package end location: Adelaide

Package entry date: 09/02 Friday @ 11:30

Package final ETA: **Package is still unassigned.** **- >** **default message – changes when packages is assigned to route, gets the date from the route location ETA**

Package status: **unassigned (unassigned => assigned => in progress) - >** **default message – changes when packages is assigned to route, and depends on the current date**

RouteID: **Package is still unassigned.** **- >** **default message – changes when packages is assigned to route, gets the route’s ID**

**Input:** SearchRoute AliceSprings Adelaide

**Output**:

Route locations: Alice Spring (10/02 Saturday @ 06:00) → Adelaide (10/02 Saturday @ 20:00) → Sydney (11/02 Sunday @ 18:00) -> Melbourne (12/02 Monday @ 14:00) -> Brisbane (13/02 Tuesday @ 14:00)

**Input:** SearchTruck range available

**Output**:

TruckID: 1007

Truck max capacity: 42 000 kg

Truck max range: 8 000 km

Truck status: available

===============

TruckID: 1012

Truck capacity: 37 000 kg

Truck max range: 10 000 km

Truck status: available

===============

**Input:** AddTruckToRoute RouteId TruckId

**Output:** Truck with ID: 1007 has been added to route with ID: 25!

**Input:** UpdateTruck TruckID unavailable

**Output**: Truck with ID: 1007 has been updated with status: unavailable!

**Input:** ViewTruck TruckId

**Output**:

TruckID: 1007

Truck max capacity: 42 000 kg

Truck max range: 8 000 km

Truck status: unavailable

**Input:** ViewRoute RouteId

**Output**:

RouteID: 25

Route status: **open - >** **default message – changes when packages assigned to route, and depends on the current date**

Route locations: Alice Spring (10/02 Saturday @ 06:00) → Adelaide (10/02 Saturday @ 20:00) → Sydney (11/02 Sunday @ 18:00) -> Melbourne (12/02 Monday @ 14:00) -> Brisbane (13/02 Tuesday @ 14:00)

Route distance: 4041 km

Route capacity: **Capacity is still uncalculated. - >** **default message – changes when packages assigned to route from hub**

Route start date: 10/02 Saturday @ 06:00

Route final ETA: 13/02 Tuesday @ 14:00

PackageID: **Package is still unassigned. - >** **default message – changes when packages assigned to route from hub**

TruckID: **1007**

**Input:** AddPackageToRoute RouteId PackageId weight

**Output:** Package with ID: 21 has been added to route with ID: 25!

**Input:** ViewRoute RouteId

**Output**:

RouteID: 25

Route status: **open - >** **default message – changes when packages assigned to route, and depends on the current date**

Route locations: Alice Spring (10/02 Saturday @ 06:00) → Adelaide (10/02 Saturday @ 20:00) → Sydney (11/02 Sunday @ 18:00) -> Melbourne (12/02 Monday @ 14:00) -> Brisbane (13/02 Tuesday @ 14:00)

Route distance: 4041 km

Route capacity: **45 - >** **default message – changes when packages assigned to route from hub**

Route start date: 10/02 Saturday @ 06:00

Route final ETA: 13/02 Tuesday @ 14:00

PackageID: **21 - >** **default message – changes when packages assigned to route from hub**

TruckID: **1007**

**Input:** UpdateRoute RouteId

**Output**: Route with ID: 25 has been updated with status: scheduled!

**Input:** ViewRoute RouteId

**Output**:

RouteID: 25

Route status: **scheduled - >** **default message – changes when packages assigned to route, and depends on the current date**

Route locations: Alice Spring (10/02 Saturday @ 06:00) → Adelaide (10/02 Saturday @ 20:00) → Sydney (11/02 Sunday @ 18:00) -> Melbourne (12/02 Monday @ 14:00) -> Brisbane (13/02 Tuesday @ 14:00)

Route distance: 4041 km

Route capacity: **45 - >** **default message – changes when packages assigned to route from hub**

Route start date: 10/02 Saturday @ 06:00

Route final ETA: 13/02 Tuesday @ 14:00

PackageID: **21 - >** **default message – changes when packages assigned to route from hub**

TruckID: **1007**

**Input:** UpdatePackage PackageID RouteId Assigned Eta

**Output**: Package with ID: 21 has been updated with status: assigned!

**Input:** ViewPackage IdPackage ***(1 param)***

**Output:**

PackageID: 21

Package weight: 45 kg

Package start location: Alice Springs

Package end location: Adelaide

Package entry date: 09/02 Friday @ 11:30

Package final ETA: **13/02 Tuesday @ 14:00**

Package status: **assigned**

RouteID: **25**

**Input:** RemovePackageFromRoute RouteId PackageId

**Output:** Package with ID: 21 has been removed from route with ID: 25!

**Input:** RemoveTruckFromRoute RouteId TruckId

**Output:** Truck with ID: 1007 has been removed from route with ID: 25!

**Input:** ViewRoute RouteId

**Output**:

RouteID: 25

Route status: **scheduled**

Route locations: Alice Spring (10/02 Saturday @ 06:00) → Adelaide (10/02 Saturday @ 20:00) → Sydney (11/02 Sunday @ 18:00) -> Melbourne (12/02 Monday @ 14:00) -> Brisbane (13/02 Tuesday @ 14:00)

Route distance: 4041 km

Route capacity: **Capacity is still uncalculated.**

Route start date: 10/02 Saturday @ 06:00

Route final ETA: 13/02 Tuesday @ 14:00

PackageID: **Package is still unassigned.**

TruckID: **Truck is still unassigned.**

**Input:** UpdateRoute RouteId

**Output**: Route with ID: 25 has been updated with status: cancelled!

**Input:** UpdateCustomer PackageID

**Output**: Package with ID: 21 assigned to route ID: 25. Final ETA: 13/02 Tuesday @ 14:00.