

# Test Plan

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## Functional Requirement 1

As a user, I would like to know the information of tracked package by searching its tracking ID

### Functional Test Cases

Test ID	1
Title	Insert tracking ID
Instructions	Users insert tracking ID in input box and press “track” button
Expected Result	The information of tracked package appears
Severity	Critical

Test ID	2
Title	Information of tracked package
Instructions	On the information page, display the basic information of tracked package

Expected Result	Information page appears with display shipping date, estimate arrival data, shipping location, arrival location, and shipment progress information
Severity	Critical

#### Equivalence Test Cases

Test ID	3
Title	Input box without tracking ID
Instructions	On the main page, leave the input box blank and click track button
Expected Result	App displays a “Please enter tracking ID” error
Severity	Important

Test ID	4
Title	Tracking ID too long or too short
Instructions	On the main page, enter a tracking ID which is longer or shorter than the preset length
Expected Result	App displays a “Wrong tracking ID” error
Severity	Workaround

Test ID	5
Title	Tracking ID not exist
Instructions	On the main page, enter a tracking ID which is not in the database
Expected Result	App displays a "Tracking ID not found" error
Severity	critical

#### Boundary Test cases

Test ID	6
Title	Tracking ID contains invalid characters
Instructions	On the main page, enter a Tracking ID that has invalid characters such as emojis or symbols and click "track" button
Expected Result	App displays a "Wrong tracking ID" error
Severity	Important

## Functional Requirement 2

As a user, I would like to see the current status of tracked package

#### Functional Test Cases

Test ID	7
Title	Get current status of tracked package
Instructions	Enter tracking ID and Click on “Track” button
Expected Result	Jump to information page, the information page appears the current status of tracked package
Severity	Critical

Test ID	8
Title	Information of current status
Instructions	Enter tracking ID and Click on “Track” button jump to information page
Expected Result	The current status appears on the information page(Label created but not shipped yet, Shipped, In transit , or Delivered)
Severity	Important

Test ID	9
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Title	Progress overview of tracked package
Instructions	Enter tracking ID and Click on “Track” button jump to information page
Expected Result	The progress overview of tracked package appears on the information page
Severity	Important

Test ID	10
Title	Progress detailed review of tracked package
Instructions	Enter tracking ID and Click on “Track” button jump to information page then press “Detailed review” button
Expected Result	The detail of tracked package progress information appears on the information page
Severity	Important

## Functional Requirement 3

As a user, I would like to see the estimated date of arrival of tracked package

Functional Test Cases

Test ID	11
Title	View estimated date of arrival
Instructions	Enter tracking ID and Click on “Track” button jump to information page
Expected Result	Information page appears displaying estimated arrival date.
Severity	Critical

Test ID	12
Title	Format of estimated arrival date
Instructions	Enter tracking ID and Click on “Track” button jump to information page
Expected Result	The format of estimated arrival date should be MM/DD/YEAR
Severity	Important

#### Boundary Test cases

Test ID	13
Title	Estimated date is in the past

Instructions	Enter tracking ID and Click on “Track” button jump to information page
Expected Result	The estimated arrival date should be a date in the future
Severity	Important

## Functional Requirement 4

As a user, I would like to see the destination of tracked package

### Functional Test Cases

Test ID	14
Title	Destination of tracked package
Instructions	Enter tracking ID and Click on “Track” button jump to information page
Expected Result	The destination of tracked package appears on the information page
Severity	Critical

Test ID	15
Title	Format of destination of tracked package
Instructions	Enter tracking ID and Click on “Track” button jump to information page

Expected Result	The format of destination should be City,State,Country
Severity	Important

#### Boundary Test cases

Test ID	16
Title	Sensitive information of destination of tracked package
Instructions	Enter tracking ID and Click on “Track” button jump to information page
Expected Result	Only display city, state and country of the destination of tracked package. Not detail addresses are displayed.
Severity	Important

## Functional Requirement 5

As a user, I would like to see the starting point of tracked package

#### Functional Test Cases

Test ID	17
Title	Starting point of tracked package
Instructions	Enter tracking ID and Click on “Track” button jump to information page



Expected Result	The starting point of tracked package appears on the information page
Severity	Critical

Test ID	18
Title	Format of starting point of tracked package
Instructions	Enter tracking ID and Click on “Track” button jump to information page
Expected Result	The format of starting point should be City,State,Country
Severity	Important

#### Boundary Test cases

Test ID	19
Title	Sensitive information of starting point of tracked package
Instructions	Enter tracking ID and Click on “Track” button jump to information page
Expected Result	Only display city, state and country of the starting point of tracked package. Not detail addresses are displayed.
Severity	Important

## Functional Requirement 6

As a user, I would like to see the current location of tracked package

### Functional Test Cases

Test ID	20
Title	Current location of tracked package
Instructions	Enter tracking ID and Click on “Track” button jump to information page
Expected Result	The current location of tracked package appears on the information page
Severity	Critical

Test ID	21
Title	Format of current location of tracked package
Instructions	Enter tracking ID and Click on “Track” button jump to information page
Expected Result	The format of current location should be City,State,Country
Severity	Important

## Boundary Test cases

Test ID	22
Title	Sensitive information of current location of tracked package
Instructions	Enter tracking ID and Click on “Track” button jump to information page
Expected Result	Only display city, state and country of the current location of tracked package. Not detail addresses are displayed.
Severity	Important

## Functional Requirement 7

As a user, I would like to see the last update date of tracked package

### Functional Test Cases

Test ID	23
Title	View last update date
Instructions	Enter tracking ID and Click on “Track” button jump to information page
Expected Result	Information page appears displaying last update date
Severity	Critical

Test ID	24
Title	Format of last update date
Instructions	Enter tracking ID and Click on “Track” button jump to information page
Expected Result	The format of last update date should be MM/DD/YEAR
Severity	Important

#### Boundary Test cases

Test ID	25
Title	Estimated date is in the future
Instructions	Enter tracking ID and Click on “Track” button jump to information page
Expected Result	The last update date should be a date in the past
Severity	Important

## Functional Requirement 8

As a user, I would like to see the tracking ID of tracked package

#### Functional Test Cases

Test ID	26
Title	View tracing ID
Instructions	Enter tracking ID, and Click on “Track” button jump to information page
Expected Result	Information page shows the tracking ID..
Severity	Critical

## Functional Requirement 9

As a user, I would like to see the full tracking history of tracked package

### Functional Test Cases

Test ID	27
Title	Get the full tracking history
Instructions	Enter tracking ID, Click on “Track” button jump to information page, and Click “See Full tracking history” button in the middle of the screen.
Expected Result	Information page appears displaying the full tracking history of tracked package.
Severity	Critical

Test ID	28
Title	Information of the full tracking history
Instructions	Enter tracking ID, Click on “Track” button jump to information page, and Click “See Full tracking history” button in the middle of the screen.
Expected Result	Information page shows the detailed information of full tracking history of tracked package. (Each transit city should be displayed and expected package destination should be displayed as the last one)
Severity	Critical

## Functional Requirement 10

As a user, I would like to see the date of delivery if the tracked package is delivered

### Functional Test Cases

Test ID	29
Title	View the date of delivery if the tracked package is delivered
Instructions	Enter tracking ID, Click on “Track” button, and the information page will display
Expected Result	The information page shows the date of delivery if the tracked package is delivered

Severity	Critical
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#### Equivalence Test Cases

Test ID	30
Title	No date of delivery will be showed out If the tracked package is not delivered
Instructions	Enter tracking ID, then Click on “Track” button, and the information page will display
Expected Result	The information page won’t show the date of delivery If the tracked package is not delivered
Severity	Important

## Functional Requirement 11

As a user, I would like to see a map

#### Functional Test Cases

Test ID	31
Title	View the map
Instructions	Enter tracking ID, then click on “Track” button, and the information page will display.
Expected Result	The information page shows the map

Severity	Critical
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## Functional Requirement 12

As a user, I would like to see my package location on a map

### Functional Test Cases

Test ID	32
Title	Display a valid package location
Instructions	Enter tracking ID, then click on "Track" button, and the map will display.
Expected Result	A location marker indicates where the package is at.
Severity	Critical

### Equivalence Test Cases

Test ID	33
Title	Display package location which doesn't exist
Instructions	If the address on tracking history doesn't exist on planet
Expected Result	No location marker shows on the map. An error message "Ops, we can't identify the current location of your package" pops up.



Severity	Critical
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#### Boundary Test Cases

Test ID	34
Title	Display an empty package location
Instructions	If the address on tracking history is empty
Expected Result	No location marker shows on the map. An error message “Ops, looks like carrier facility doesn’t want us to know neither.” pops up.
Severity	Critical

## Functional Requirement 13

As a user, I would like to zoom in/out the map

#### Functional Test Cases

Test ID	35
Title	Zoom in the map
Instructions	Place mouse indicator inside map, scroll mouse wheel up
Expected Result	Map zooms in and more detailed map information loads.

Severity	Critical
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#### Equivalence Test Cases

Test ID	36
Title	Zoom out the map
Instructions	Place mouse indicator inside map, scroll mouse wheel down
Expected Result	Map zooms out and shows a broader view.
Severity	Critical

#### Boundary Test Cases

Test ID	37
Title	Scroll mouse outside map component
Instructions	Place mouse indicator outside the map, scroll mouse wheel
Expected Result	Map view unchanged.
Severity	Critical

## Functional Requirement 14

As a user, I would like to drag on the map

#### Functional Test Cases

Test ID	38
Title	Drag map left
Instructions	Place mouse indicator inside map, then left click and hold down while moving the mouse to left
Expected Result	Map information on the east side revealed
Severity	Critical

#### Equivalence Test Cases

Test ID	39
Title	Drag map right
Instructions	Place mouse indicator inside map, then left click and hold down while moving the mouse to right
Expected Result	Map information on the west side revealed
Severity	Critical

Test ID	40
Title	Drag map up
Instructions	Place mouse indicator inside map, then left click and hold down while moving the mouse up
Expected Result	Map information on the south side revealed
Severity	Critical

Test ID	41
Title	Drag map down
Instructions	Place mouse indicator inside map, then left click and hold down while moving the mouse down
Expected Result	Map information on the north side revealed
Severity	Critical

#### Boundary test cases

Test ID	42
Title	Drag outside of the map

Instructions	Place mouse indicator outside the map, then drag.
Expected Result	Map view unchanged.
Severity	Critical

## Functional Requirement 15

As a user, I would like to get brief information when clicking on the location marker

### Functional Test Cases

Test ID	43
Title	Display brief information when clicking on the location marker
Instructions	Place mouse over the location marker, then left click
Expected Result	A window with brief information such as current location, package arrival time and package status pops up.
Severity	Critical

### Boundary Test Cases

Test ID	44
Title	Display brief information with no current location

Instructions	If current location in tracking history is empty
Expected Result	The popup window will display current location as “unknown”
Severity	Critical

Test ID	45
Title	Display brief information with no package arrival time
Instructions	If package arrival time in tracking history is empty
Expected Result	The popup window will display current location as “unknown”
Severity	Critical

Test ID	46
Title	Display brief information with no package status
Instructions	If package status in tracking history is empty
Expected Result	The popup window will display package status as “unknown”
Severity	Critical

## Functional Requirement 16

As a user, I would like to see the travelling route of tracked package

### Functional Test Cases

Test ID	47
Title	Display travelling route of tracked package
Instructions	Enter tracking ID, then click on “Track” button, and the map will display.
Expected Result	Previous travelling route of tracked package is shown on map.
Severity	Critical

### Equivalence Test Cases

Test ID	48
Title	Display travelling route while having invalid locations
Instructions	If any node on tracking history is invalid
Expected Result	That node will be excluded from travelling polyline
Severity	Critical

### Boundary Test Cases

Test ID	49
Title	Display travelling route while having empty locations
Instructions	If any node on tracking history is empty
Expected Result	That node will be excluded from travelling polyline
Severity	Critical

## Functional Requirement 17

As a user, I would like to switch between different tilelayers

### Functional Test Cases

Test ID	50
Title	Switch to satellite tilelayer
Instructions	Hover on the tilelayer widget, click satellite
Expected Result	Map is switched to satellite view.
Severity	Critical

### Equivalence Test Cases



Test ID	51
Title	Switch to normal tilelayer
Instructions	Hover on the tilelayer widget, click normal
Expected Result	Map is switched to normal view.
Severity	Critical

## Functional Requirement 18

As a user, I would like to see the scale in metric and imperial system

Functional Test Cases:

Test ID	52
Title	Display scale bar
Instructions	Enter tracking ID, then click on "Track" button, and the map will display.
Expected Result	A scale bar with both metric and imperial system shows on the map
Severity	Critical

Test ID	53
Title	Zoom in/out map
Instructions	Zoom in/out with mouse scroll
Expected Result	Scale bar changes scale accordingly.
Severity	Critical

## Functional Requirement 19

As a user, I would like to create an account

### Functional Test Cases

Test ID	54
Title	create user account unsuccessfully
Instructions	Enter username and password and email, then click on “create” button, and the page will be redirected to another page
Expected Result	The user create an account successfully and can use other features of the application
Severity	Critical

### Equivalence Test Cases

Test ID	55
Title	Create button does not work
Instructions	Account can not be created after “creat” button is being pressed
Expected Result	The user should see account being created successfully, and the page is reloaded
Severity	Critical

## Functional Requirement 20

As a user, I would like to login to my account

### Functional Test Cases

Test ID	56
Title	Login to user account unsuccessfully
Instructions	Enter username and password, then click on “Sign in” button, and the page will be redirected to another page
Expected Result	The user sign in successfully and can use other features of the application
Severity	Critical

### Equivalence Test Cases

Test ID	57
Title	Test on the button
Instructions	Text on the button is not sign up
Expected Result	The user should see a button with text “sign up” and when this button is pressed, it should function properly.
Severity	Critical

#### Boundary Test Cases

Test ID	58
Title	Input of both username and password shows improperly
Instructions	User enter username and password information
Expected Result	User input should remains inside the box of username and password
Severity	Important

## Functional Requirement 21

As a user, I would like to check my personal list of tracked packages after I login

#### Functional Test Cases

Test ID	59
Title	Personal list of tracked packages not showing
Instructions	Enter username and password, then click on “Sign in” button, and the page shows next should list all personal packages
Expected Result	The user should be able to see personal packages he adds before
Severity	Critical

## Functional Requirement 22

As a user, I would like to add package to my personal list of tracked packages

### Functional Test Cases

Test ID	60
Title	Add package to personal list
Instructions	Click on “add” button to add the package to the list
Expected Result	Shows personal package at home page
Severity	Critical

### Equivalence Test Cases

Test ID	61
Title	Add package without login
Instructions	Add the package to the list without login the user account
Expected Result	Shows a message that informing user that adding package is invalid
Severity	important

## Functional Requirement 23

As a user, I would like to remove package from my personal list of tracked packages

### Functional Test Cases

Test ID	62
Title	delete package from personal list
Instructions	Click on “delete” button to delete the package
Expected Result	Item disappears
Severity	important

### Equivalence Test Cases

Test ID	63
Title	Package remains after delete is pressed
Instructions	Click “delete” button, but nothing happens

Expected Result	Shows a message that package has been removed
Severity	important

## Functional Requirement 24

As a user, I would like to log out my account

### Functional Test Cases

Test ID	64
Title	Logout to home page
Instructions	Click on "logout" button to go back to home page
Expected Result	Current page redirect to home page
Severity	important

### Equivalence Test Cases

Test ID	65
Title	Logout remains to the same page
Instructions	Click "logout" button, but nothing happens
Expected Result	Logout successfully, but not redirected to home page
Severity	important

## Functional Requirement 25

As a user, I would like to see a help page

### Functional Test Cases

Test ID	66
Title	Shows help page
Instructions	Click on “help” button to go to another page
Expected Result	Current page redirect to help page
Severity	important

### Equivalence Test Cases

Test ID	67
Title	Help page does not show up
Instructions	Click “help” button, but nothing happens
Expected Result	Page should be redirected to a help page.
Severity	important

## Functional Requirement 26

As a user, I would like to reset my password via email

### Functional Test Cases

Test ID	68
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Title	Forgot Password
Instructions	Click on “Forgot Password” button, and the page will be redirected to another page where user input his email address he used to setup the account
Expected Result	App shows “an email has been sent to the mailbox provided if there is an account using this email address” message, and the user receives an email in the mailbox which contains a link for resetting the password
Severity	Critical

#### Equivalence Test Cases

Test ID	69
Title	Wrong email address
Instructions	Click on “Forgot Password” button, and the page will be redirected to another page where user input a wrong email address
Expected Result	App shows “an email has been sent to the mailbox provided if there is an account using this email address” message, but the user does not receive any email
Severity	Critical

#### Boundary Test Cases

Test ID	70
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Title	Invalid character in the email address
Instructions	Click on “Forgot Password” button, and the page will be redirected to another page where user input an email address containing invalid characters such as emojis and other special symbols
Expected Result	App shows a “invalid email address” error
Severity	Important

## Functional Requirement 27

As a user, I should be able to receive an email after creating a new account

### Functional Test Cases

Test ID	71
Title	Email after creating an account
Instructions	User input email and password, click on “sign up” button, and then opens the link in the mailbox, login with new credentials
Expected Result	App shows “A confirmation email has been sent to your mailbox” message and the page will be redirected to the login page, and when the user opens the link in the mailbox, it directs to the login page with a “You have successfully signed up” message, after the user clicks “ok”, the user should be able to login with the credentials he used to create the account

Severity	Critical
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#### Equivalence Test Cases

Test ID	72
Title	User does not open the link in the mailbox
Instructions	User input email and password, click on “sign up” button, but does not open the link in the mailbox, then try to login with the new credentials
Expected Result	App shows “A confirmation email has been sent to your mailbox” message and the page will be redirected to the login page, but the user will not be able to login the new account until he opens the confirmation link sent to his mailbox
Severity	Critical

#### Boundary Test Cases

Test ID	73
Title	Invalid character in the email address
Instructions	User input email containing invalid characters such as emojis and other special symbols and password, click on “sign up” button
Expected Result	App shows a “invalid email address” error
Severity	Important

## Functional Requirement 28

As a user, I should be able to select my own security question when I create my account

### Functional Test Cases

Test ID	74
Title	Select security question
Instructions	On the main page, press “sign up” button jump to create profile page
Expected Result	Create profile page appears, asking for select security question
Severity	Critical

Test ID	75
Title	Usability of drop-down box
Instructions	On the main page, press “sign up” button jump to create profile page, press the drop-down box
Expected Result	Default security questions appear
Severity	Critical

## Functional Requirement 29

As a user, I should be able to customize my own security question answer when I create my account

### Functional Test Cases

Test ID	76
Title	Select security question
Instructions	On the main page, press “sign up” button jump to create profile page, choose a security question, then enter the answer in the input box
Expected Result	Security answer should be able to enter under preset rules
Severity	Critical

### Boundary Test cases

Test ID	77
Title	Security question answer contains invalid characters
Instructions	On the main page, press “sign up” button jump to create profile page, choose a security question, then enter the answer in the input box with invalid characters such as emojis or symbols and click “next” button
Expected Result	App displays a “Invalid answer” error
Severity	Important

