White Box Testing

The following features will be tested with the white box testing method:

1) Submit new request as beneficiary

i)Control flow graph

SubmitNewRequest(foodName, foodCategory, 3 Display error message: True if (any field empty quantityOfItems, specialRequest, Please input all fields requestFoodBy) False 4 Return create_new_request (foodName, foodCategory, quantityOfItems, specialRequest, requestFoodBy) 5 6 True False Request is stored in the Display error Message: if (upload success exception "internal system Failed to add request" server error' Display success message: 10 Request successfully 11 User is re-directed to the beneficiary dashboard

ii) Basic Path Testing

Cyclomatic complexity: | Decision points | + 1 = 2 + 1 = 3

Basic paths:

1) Baseline path: 1,2,4,5,9,10,11

2) Basis path 2: 1,2,3,8

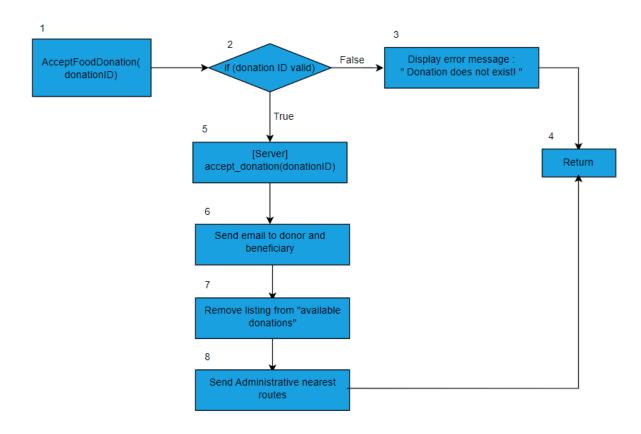
3) Basis path 3: 1,2,4,5,6,7,8

iii)Test Cases And Results

No.	Test Input	Expected Output	Actual Output	Pass?
1	All fields empty (foodName, servings, specialRequest, date, deliveryMethod, etc.)	Error: "Please input all fields"	Please input all fields	Yes
2	Some fields empty (e.g., servings, deliveryMethod)	Error: "Please input all fields"	Please input all fields	Yes
3	All fields filled, valid data (e.g., valid foodName, servings, etc.)	Success: Request successfully added, redirect to dashboard	Request successfully added, redirect to dashboard	Yes
4	All fields filled, but illegal fields (e.g., invalid characters in foodName)	Error: "Internal server error"	Internal server error	Yes
5	Invalid date format (e.g., date in wrong format)	Error: "Invalid date format"	Invalid date format	Yes
6	Server error during request creation (simulating server failure)	Error: "Failed to add request"	Failed to add request	Yes

2) Accepting new donations from donor as beneficiary

i) Control Flow Graph



ii) Basic Paths Testing:

Cyclomatic complexity: | Decision points | + 1 = 2

Basic paths:

1) Baseline path: 1,2,5,6,7,8,4

2) Basis path: 1,2,3,4

iii) Test case and Results

No.	Test Input	Expected Output	Actual Output	Pass?
1	Valid donation ID	Success: Donation accepted successfully.	Donation accepted successfully	Yes

Invalid donation ID HTTP 400 exception thrown with message "Donation does not exist". Display error message: "Failed to add accept donation Display error message: "Failed to add accept donation"
