BLACK BOX TEST PLAN

In this section, you must provide your black-box test plan with at least 5 black-box test cases.

Make sure:

- ✓ You describe how to setup the system to begin black-box testing
- ✓ Test IDs are uniquely identified and descriptive
- ✓ Test descriptions are fully specified with complete inputs, specific values, and preconditions
    - o Be sure to provide SPECIFIC INPUTs and VALUEs so that your test cases are repeatable
- ✓ Expected results are fully specified with specific output values
- ✓ The test process is fully provided and clear. No modifications are needed.
- ✓ All tests cover scenarios based on the problem statement
- ✓ All tests cover unique scenarios for the system
- ✓ All strategies for black-box testing are demonstrated in the tests (ECP, BVA, DT)

The Human Resources Manager system manages employee information, given two input files. One file contains employee information while the other contains the employee's resume information. Once those two input files are provided, the program will then allow the user to create an organizational list of employees based on the given information, create an organizational profile of employees ordered by tier, remove an employee from the human resource system, or query for the number of employees in a department.

The test files sample.txt and sample-resume.txt will be provided for the following test cases.

The text file sample.txt contains the following content:

```
Sarah, Jones, R200581294
(
  John, Smith, R000634703
  Jane, Doe, R040123346
  (
    Thomas, Webb, R829476581
    (
      Jessica, Daniels, R228401745
      Kyle, DeMarcino, R123582991
    )
  )
  Suzanne, Meadows, R891429182
)
```

The text file sample-resume.txt contains the following content:

```
RESUME_ID, YEARS_OF_SERVICE, HIGHEST_DEGREE
R228401745, 1, M
```

R123582991, 1, B
R040123346, 18, B
R891429182, 9, P
R200581294, 7, N
R000634703, 4, M
R829476581, 8, A

(Note that the two test files were provided from the project 2 write-up)

The HumanResourcesManagerUI will be responsible for starting the Human Resources Manager program. The UI program will be loaded on the terminal. Once HumanResourcesManagerUI has started, the user should then be prompted to provide two input files: one that contain employee information and the other that contains resume information.

Test ID	Description	Expected Results	Actual Results
testLoadInput Files (ECP - loading two valid input files)	Preconditions: ● HumanResourcesManager UI has started ● The user is prompted to provide two input files ● The text files sample.txt and sample-resume.txt have been created The user provides a file that contains employee information and another that contains the employee's resume information to the terminal. The user should then be prompted to either generate an organizational profile, remove an employee from the HR system, or quit the program. Steps: 1. On the command line, type "input/sample.txt" as the employee info file 2. Click enter 3. Type "input/sample-resume.txt" as the resume info file. 4. Click enter	On the terminal, the following options are displayed: Generate Organizational Profile (G), Remove an Employee from the HR System (R), or Quit the Program (Q)	The following options were displayed on the terminal: Generate Organizational Profile (G), Remove an Employee from the HR System (R), or Quit the Program (Q)
	Preconditions:	The organizational profile is created and	The terminal displayed the

| testGenerateOrganizationalProfile

(ECP - generating an organizational profile of employees based on given input files) | ● HumanResourcesManager UI has started and is running
● testLoadInputFiles has passed

The user selects the option to generate an organizational profile of all employees by tier to see if the profile is displayed through the terminal.

Steps:

1. On the command-line, type "G"
2. Click enter | displays the following information through the terminal:

OrganizationalProfile[
   Sarah Jones
   John Smith
   Jane Doe
   Suzanne Meadows
   Thomas Webb
   Jessica Daniels
   Kyle DeMarcino
] | following information:

OrganizationalProfile[
   Sarah Jones
   John Smith
   Jane Doe
   Suzanne Meadows
   Thomas Webb
   Jessica Daniels
   Kyle DeMarcino
]

The terminal then displayed the same three options to choose from. |
| testRemoveInvalidEmployee

(DT - removing an employee that doesn't exist in the HR system) | Preconditions:

● HumanResourcesManager UI has started and is running
● testLoadInputFiles and testGenerateOrganizationalProfile have passed

The user selects the option to remove an employee that is not in the HR system to see if the program displays a message indicating that the employee is not in the HR system.

Steps:

1. On the command-line, type "R"
2. Click enter
3. Type "John" as the first name and "Doe" as the second name, on the same line. The two names should be separated by a whitespace
4. Click enter
5. Check the results
6. Type "G"
7. Click enter | A message is displayed on the terminal, stating "Employee was not found."

The terminal displayed the same three options to choose from.

When "G" is entered, the terminal displayed the same information:

OrganizationalProfile[
   Sarah Jones
   John Smith
   Jane Doe
   Suzanne Meadows
   Thomas Webb
   Jessica Daniels
   Kyle DeMarcino
] | The message "Employee was not found." Was displayed on the terminal.

The terminal displayed the same three options to choose from.

When "G" was entered, the following information was displayed:

OrganizationalProfile[
   Sarah Jones
   John Smith
   Jane Doe
   Suzanne Meadows
   Thomas Webb
   Jessica Daniels
   Kyle DeMarcino
] |

testRemoveEmployee-NoInterim
 	
(BVA – removing an employee that has no employees currently supervised in the same department/unit)
	Preconditions:
	
	● HumanResourcesManager UI has started and is running
	● testLoadInputFiles and testGenerateOrganizationalProfile have passed
	
	The user selects the option to remove the employee from the HR system that has no supervised employees to see if the program displays a message that states that the employee was removed and that there is no interim supervisor.
	
	Steps:
	
	1. On the command-line, type "R"
	2. Click enter
	3. Type "Suzanne" as the first name and "Meadows" as the last name, on the same line. The two names are separated by a whitespace
	4. Click enter
	5. Check the results
	6. Type "G"
	7. Click enter
		The message "The employee has been removed from the HR system, and the HR system is updated accordingly" is displayed.
		
		The message "The employee has been removed from the HR system" is displayed.
		
		The message "No interim supervisor" is displayed.
		
		The organizational profile after removing Suzanne Meadows contains the following information:
		
		OrganizationalProfile[
		    Sarah Jones
		    John Smith
		    Jane Doe
		    Thomas Webb
		    Jessica Daniels
		    Kyle DeMarcino
		]
			The message "The employee has been removed from the HR system, and the HR system is updated accordingly" was displayed.
			
			The message "The employee has been removed from the HR system" was displayed.
			
			The message "No interim supervisor" was displayed.
			
			The organizational profile after removing Suzanne Meadows contained the following information:
			
			OrganizationalProfile[
			    Sarah Jones
			    John Smith
			    Jane Doe
			    Thomas Webb
			    Jessica Daniels
			    Kyle DeMarcino
			]

testQuitHumanResourcesManager (ECP - quitting the program)	Preconditions: ● HumanResourcesManager UI has started and is running ● testLoadInputFiles has passed The user selects the option to quit the program to see if the program closes.	The message "The Human Resources Manager program will close." is displayed on the terminal. HumanResourcesManagerUI is closed, but the terminal remains open.	The message "The Human Resources Manager program will close." was displayed on the terminal. The terminal remained opened, but HumanResourcesManagerUI was terminated.

	Steps: 1. On the command-line, type "Q" 2. Click enter		

Document Revision History

Date	Author	Change Description
3-9-18	Jimmy Nguyen	• Updated BBTP test file description – provided citation for where the two test files were taken from • Updated testLoadInputFiles, testGenerateOrganizationalProfile, testRemoveInvalidEmployee, and testQuitHumanResourcesManager • Removed testQueryNumberOfEmployees • Added testRemoveEmployee-NoInterim
3-13-18	Jimmy Nguyen	• Updated testLoadInputfiles, testGenerateOrganizationalProfile, testRemoveInvalidEmployee, and testRemoveEmployee-NoInterim