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Group 25

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| Test Case # | Purpose of Test Case | Input Data | Expected Output |
| 1 | Test the ‘add’, ‘remove’ and ‘set hours’ button with an empty department (no radio button selected for department) | Case 1 Instance #1:  Name: “Doe, Jane” Date Hired:“3/1/2021”  “Full Time”  Annual Salary: “60000”  ‘Add Employee’  Case 2 Instance #2:  Name: “Doe, Jane” Date Hired:“3/1/2021”  “Full Time”  Annual Salary: “60000”  ‘Remove Employee’  Case 3 Instance #3:  Name: “Doe, Jane” Date Hired:“3/1/2021”  “Part Time”  Hours Worked: “30”  Rate: “39”  ‘Set Hours’ | Test case 1, 2 and 3 outputs “Please select a department.” in text area |
| 2 | Test the ‘add’ and ‘remove’ button with part time, full time and management (manager, department head and director) employees | Case 1 Instance #1: Name: “Doe, John”  Department: “ECE”  Date Hired:“3/1/2021”  “Part Time”  Rate: “50”  ‘Add Employee’  Case 2 Instance #2: Name: “Doe, John”  Department: “ECE”  Date Hired:“3/1/2021”  “Part Time”  Rate: “50”  ‘Remove Employee’  Case 3 Instance #3: Name: “Doe, John”  Department: “IT”  Date Hired:“2/1/2020”  “Full Time”  Annual Salary: “70000”  ‘Add Employee’  Case 4 Instance #4: Name: “Doe, John”  Department: “IT”  Date Hired:“2/1/2020”  “Full Time”  Annual Salary: “70000”  ‘Remove Employee’  Case 5 Instance #5:  Name: “Doe, John”  Department: “CS”  Date Hired:“1/1/2017”  “Management”  Annual Salary: “70000”  “Manager”  ‘Add Employee’  Case 6 Instance #6:  Name: “Doe, John”  Department: “CS”  Date Hired:“1/1/2017”  “Management”  Annual Salary: “70000”  “Manager”  ‘Remove Employee’  Case 7 Instance #7:  Name: “Doe, John”  Department: “ECE”  Date Hired:“1/1/2017”  “Management”  Annual Salary: “95000”  “Department Head”  ‘Add Employee’  Case 8 Instance #8:  Name: “Doe, John”  Department: “ECE”  Date Hired:“1/1/2017”  “Management”  Annual Salary: “95000”  “Department Head”  ‘Remove Employee’  Case 9 Instance #9:  Name: “Doe, John”  Department: “IT”  Date Hired:“1/1/2017”  “Management”  Annual Salary: “90000”  “Director”  ‘Add Employee’  Case 10 Instance #10:  Name: “Doe, John”  Department: “IT”  Date Hired:“1/1/2017”  “Management”  Annual Salary: “90000”  “Director”  ‘Remove Employee’ | Test case 1 outputs “Employee added”  Test case 2 outputs “Employee removed”  Test case 3 outputs “Employee added”  Test case 4 outputs “Employee removed”  Test case 5 outputs “Employee added”  Test case 6 outputs “Employee removed”  Test case 7 outputs “Employee added”  Test case 8 outputs “Employee removed”  Test case 9 outputs “Employee added”  Test case 10 outputs “Employee removed” |
| 3 | Test ‘calculate payments’ before adding employees in row above and after | Case 1 Instance #1:  (before adding employees)  ‘Calculate Payments’  Case 2 Instance #2:  (after adding employees)  ‘Calculate Payments’ | Test case 1 outputs “Employee database is empty” in text area  Test case 2 outputs “Calculation of employee payments is done” in text area |
| 4 | Test the ‘add’, ‘remove’ and ‘set hours’ method with null and invalid dates range | Case 1 Instance #1: Name: “Doe, John”  Department: “ECE”  “Part Time”  Rate: “50”  ‘Add Employee’  Case 2 Instance #2: Name: “Doe, John”  Department: “ECE”  “Part Time”  Rate: “50”  ‘Remove Employee’  Case 3 Instance #3:  Name: “Doe, John”  Department: “ECE”  “Part Time”  Hours Worked: “40”  Rate: “50”  ‘Set Hours’  Case 4 Instance #4: Name: “Doe, John”  Department: “IT”  Date Hired:“2/1/1899”  “Full Time”  Annual Salary: “70000”  ‘Add Employee’  Case 5 Instance #5: Name: “Doe, John”  Department: “IT”  Date Hired:“2/1/1899”  “Full Time”  Annual Salary: “70000”  ‘Remove Employee’  Case 6 Instance #6:  Name: “Doe, John”  Department: “ECE”  Date Hired:“2/1/1899”  “Part Time”  Hours Worked: “40”  Rate: “50”  ‘Set Hours’  Case 7 Instance #7:  Name: “Doe, John”  Department: “CS”  Date Hired:“1/1/2022”  “Management”  Annual Salary: “70000”  “Manager”  ‘Add Employee’  Case 8 Instance #8:  Name: “Doe, John”  Department: “CS”  Date Hired:“1/1/2022”  “Management”  Annual Salary: “70000”  “Manager”  ‘Remove Employee’  Case 9 Instance #9:  Name: “Doe, John”  Department: “ECE”  Date Hired:“1/1/2022”  “Part Time”  Hours Worked: “40”  Rate: “50”  ‘Set Hours’ | Test case 1, 2 and 3 outputs “Please enter a date.” in text area  Test case 4, 5 and 6 outputs “2/1/1899 is not a valid date!” in text area  Test case 7, 8 and 9 outputs “1/1/2022 is not a valid date!” in text area |
| 4 | Test the ‘add’ and ‘set hours’ button with an empty employment type (no radio button selected for employment type) | Case 1 Instance #1:  Name: “Doe, John”  Department: “CS”  Date Hired:“1/1/2022”  Annual Salary: “70000”  ‘Add Employee’  Case 3 Instance #3:  Name: “Doe, John”  Department: “ECE”  Date Hired:“1/1/2022”  Hours Worked: “40”  Rate: “50”  ‘Set Hours’ | Test case 1 and 2 outputs “Please select an employment type” in text area |
| 6 | Testing ‘add’ button with null or invalid hourly pay/annual salary | Case 1 Instance #1: Name: “Doe, John”  Department: “ECE”  Date Hired: “1/1/2020”  “Part Time”  ‘Add Employee’  Case 2 Instance #2: Name: “Doe, John”  Department: “ECE”  “Part Time”  Rate: “-40”  ‘Add Employee’  Case 3 Instance #3:  Name: “Doe, John”  Department: “CS”  Date Hired:“1/1/2017”  “Full Time”  ‘Add Employee’  Case 4 Instance #4:  Name: “Doe, John”  Department: “CS”  Date Hired:“1/1/2017”  “Full Time”  Annual Salary: “-50000”  ‘Add Employee’ | Test case 1 outputs “Please enter an hourly pay” in text area  Test case 2 outputs “Pay rate cannot be negative” in text area  Test case 3 outputs “Please enter an annual salary”  Test case 4 outputs “Pay rate cannot be negative” in text area |
| 7 | Test ‘add’ with an empty management type for managers | Name: “Doe, John”  Department: “CS”  Date Hired:“1/1/2022”  “Management”  Annual Salary: “70000”  ‘Add Employee’ | Test case outputs “Please select a management type” in text area |
| 8 | Test ‘add’ with an employee already in the list | Name: “Doe, John”  Department: “IT”  Date Hired:“2/1/2020”  “Full Time”  Annual Salary: “70000”  ‘Add Employee’  Name: “Doe, John”  Department: “IT”  Date Hired:“2/1/2020”  “Full Time”  Annual Salary: “70000”  ‘Add Employee’ | Test case outputs “Employee is already in the list” in text area |
| 9 | Test ‘remove’, ‘set hours’ and ‘export’ with an empty company database | Case 1 Instance #1:  Name: “Doe, John”  Department: “IT”  Date Hired:“2/1/2020”  “Full Time”  Annual Salary: “70000”  ‘Remove Employee’  Case 2 Instance #2:  Name: “Doe, John”  Department: “IT”  Date Hired:“2/1/2020”  “Full Time”  Annual Salary: “70000”  ‘Remove Employee’  Case 3 Instance #3:  ‘Export’  // empty company | Test case 1, 2 and 3 outputs “Employee database is empty” in text area |
| 10 | Test ‘remove with nonexistent employee | Name: “nonexistent”  Department: “IT”  Date Hired:“2/1/2020”  “Part Time”  Hours Worked: “50”  Rate: “40”  ‘Remove Employee’ | Test case outputs “Employee doesn’t exist” in the text area |
| 11 | Test ‘set hours’ with invalid or null hours worked | Case 1 Instance #1: Name: “Doe, John”  Department: “ECE”  Date Hired: “1/1/2020”  “Part Time”  Hours Worked:  Rate: “40”  ‘Set hours’  Case 2 Instance #2: Name: “Doe, John”  Department: “ECE”  Date Hired: “1/1/2020”  “Part Time”  Hours Worked: “string”  Rate: “40”  ‘Set hours’  Case 3 Instance #3: Name: “Doe, John”  Department: “ECE”  Date Hired: “1/1/2020”  “Part Time”  Hours Worked: “101”  Rate: “40”  ‘Set hours’  Case 4 Instance #4: Name: “Doe, John”  Department: “ECE”  Date Hired: “1/1/2020”  “Part Time”  Hours Worked: “-1”  Rate: “40”  ‘Set hours’ | Test case 1 outputs “Please enter the number of hours worked” in the text area  Test case 2 outputs “Number of hours worked must be an integer” in the text area  Test case 3 outputs “Invalid hours: over 100” in the text area  Test case 4 outputs “Working hours cannot be negative” in the text area |
| 12 | Test ‘set hours’ with non-part time and nonexistent employee | Case 1 Instance #1:  Name: “Doe, John”  Department: “IT”  Date Hired:“2/1/2020”  “Full Time”  Hours Worked: “50”  Annual Salary: “70000”  ‘Set Hours’  Case 2 Instance #2:  Name: “Doe, John”  Department: “IT”  Date Hired:“2/1/2020”  “Management”  Hours Worked: “50”  Annual Salary: “70000”  “Director”  ‘Set Hours’  Case 3 Instance #3:  Name: “nonexistent”  Department: “IT”  Date Hired:“2/1/2020”  “Part Time”  Hours Worked: “50”  Rate: “40”  ‘Set Hours’ | Test case 1 and 2 outputs “Hours can only be set for a part-time employee” in the text area  Test case 3 outputs “Employee does not exist” in the text area |
| 13 | Test ‘set hours’ with valid parameters | Name: “Doe,Jane”  Department: “IT”  Date Hired:“2/1/2020”  “Part Time”  Hours Worked: “50”  Rate: “40”  ‘Set Hours’ | Test case outputs “Working hours set” in text area |
| 14 | Test ‘import’ | Case 1 Instance #1:  ‘Import’  // closing window  Case 2 Instance #2:  ‘Import’  // picking text file | Test case 1 outputs “Error while importing database” in text area  Test case 2 outputs “Database imported” |
| 15 | Test ‘export’ | Case 1 Instance #1:  ‘Export’  // closing window  Case 2 Instance #2:  ‘Export’ | Test case 1 outputs “Error exporting database.” in text area  Test case 2 outputs “Database exported.” in text area |