**Search Contacts in Odoo Contacts Module**

**(19L-1229-BCS-8A-1st User Story and Related Work)**

**User Story:** As a sales representative, I want to be able to search for contacts by name, email, or phone number, so that I can quickly find the contact information I need to make a sale.

**Equivalence Class Partitions:**

1. **Valid name search:** Searching for a contact by their first or last name, which is a valid input.
2. **Invalid name search:** Searching for a contact using an invalid name, such as special characters or numbers.
3. **Valid email search:** Searching for a contact by their email address, which is a valid input.
4. **Invalid email search:** Searching for a contact using an invalid email address, such as a malformed email address or an email address that does not exist.
5. **Valid phone number search:** Searching for a contact by their phone number, which is a valid input.
6. **Invalid phone number search:** Searching for a contact using an invalid phone number, such as a number with too many digits or special characters.
7. **Search by multiple fields:** Searching contact using a combination of name, email, and phone number.
8. **No matching contacts:** Searching for a contact that does not exist in the system.
9. **Multiple matching contacts:** Searching for a contact with a common name or email address that returns multiple matches.
10. **Case sensitivity:** Testing if the search is case sensitive or insensitive.

**Boundary Value Analysis:**

1. **Valid name search:**
   1. Minimum valid input: a single character name (e.g. "A")
   2. Maximum valid input: a name with the maximum allowed length (which may vary depending on the implementation, but let's say it's 50 characters)
   3. Just below minimum: an empty string
   4. Just above maximum: a name with 51 characters
2. **Valid email search:** Assuming that the email field can contain up to 254 characters
   1. Lower boundary: An email address with the minimum number of characters allowed (1). Example: a@example.com
   2. Nominal value: An email address with a length of 50 characters. Example: [john.doe1234567890abcdefghijklmnopqrstuvwxyz@example.com](mailto:john.doe1234567890abcdefghijklmnopqrstuvwxyz@example.com)
   3. Upper boundary: An email address with the maximum number of characters allowed (254).
3. **Valid phone number search:**
4. **Valid input:** (000)-000-0000 to (999)-999-9999
5. **Invalid input:**
   * (999)-999-9999+1 (maximum value + 1)
   * (000)-000-0000-1 (minimum value - 1)
   * (999)-999-9999 (maximum value)
   * (000)-000-0000 (minimum value)
6. **Searching by multiple fields:**

We can consider the following boundary values:

* Minimum valid name and minimum valid email
* Maximum valid name and maximum valid email
* Minimum valid name and maximum valid email
* Maximum valid name and minimum valid email
* Invalid name and minimum valid email
* Invalid name and maximum valid email
* Minimum valid name and invalid email
* Maximum valid name and invalid email

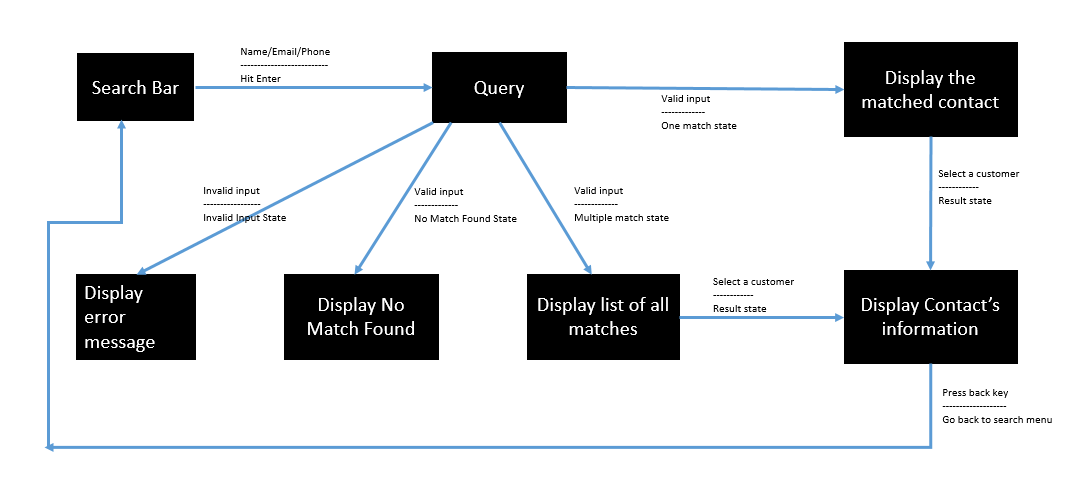
We can apply similar boundary values for searching by different combinations of fields, such as name and phone number, email and phone number, and all three fields together.

1. **Multiple matching contacts:**

Assuming that the maximum number of contacts that can be returned in the search results is 50, the boundary values for this partition would be:

* Minimum number of contacts: 2
* Maximum number of contacts: 50
* Number of contacts just above the boundary: 51
* Number of contacts just below the boundary: 1

**State Transition Diagram**



**Gherkin Test Cases**

1. **Scenario:** Search for a contact by their first name

**Given** I am on the contacts page

**When** I enter a valid first name in the search bar

**And** I click the search button

**Then** I should see a list of contacts matching the first name

**And** the list should not contain any contacts with a different first name.

1. **Scenario:** Search for a contact by their last name

**Given** I am on the contacts page

**When** I enter a valid last name in the search bar

**And** I click the search button

**Then** I should see a list of contacts matching the last name

**And** the list should not contain any contacts with a different last name

1. **Scenario:** Search for a contact by their email address

**Given** I am on the contacts page

**When** I enter a valid email address in the search bar

**And** I click the search button

**Then** I should see a list of contacts matching the email address

**And** the list should not contain any contacts with a different email address

1. **Scenario:** Search for a contact by their phone number

**Given** I am on the contacts page

**When** I enter a valid phone number in the search bar

**And** I click the search button

**Then** I should see a list of contacts matching the phone number

**And** the list should not contain any contacts with a different phone number

1. **Scenario**: Search for a contact by their first and last name

**Given** I am on the contacts page

**When** I enter a valid first name and last name in the search bar

**And** I click the search button

**Then** I should see a list of contacts matching the first and last name

**And** the list should not contain any contacts with a different first or last name

1. **Scenario**: Search for a contact by their first name and email address

**Given** I am on the contacts page

**When** I enter a valid first name and email address in the search bar

**And** I click the search button

**Then** I should see a list of contacts matching the first name and email address

**And** the list should not contain any contacts with a different first name or email address

1. **Scenario**: Search for a contact by their last name and email address

**Given** I am on the contacts page

**When** I enter a valid last name and email address in the search bar

**And** I click the search button

**Then** I should see a list of contacts matching the last name and email address

**And** the list should not contain any contacts with a different last name or email address

1. **Scenario**: Search for a contact by their first name, last name and email address

**Given** I am on the contacts page

**When** I enter a valid first name, last name and email address in the search bar

**And** I click the search button

**Then** I should see a list of contacts matching the first name, last name and email address

1. **Scenario**: Search for a contact with invalid email

**Given** the user is on the search page

**When** they enter an email address with invalid characters

**And** click on the search button

**Then** the system should display an error message "Invalid email address entered"

1. **Scenario**: Search for a contact with invalid phone number

**Given** the user is on the search page

**When** they enter a phone number with invalid characters

**And** click on the search button

**Then** the system should display an error message "Invalid phone number entered"

Create New Opportunity CRM Module

**(19L-1229-BCS-8A-2nd User Story and Related Work)**

**User Story:** "As a sales representative in Odoo CRM, I want to be able to create a new opportunity by filling out a small form that asks for the opportunity title, email, phone, expected revenue, and the organization/contact. The opportunity title should be the only required field, and I should have the option to choose an existing contact/organization from the drop-down or create a new one. Once I add the opportunity, it should be added to the first stage of the Kanban view."

**Equivalence Class Partitions:**

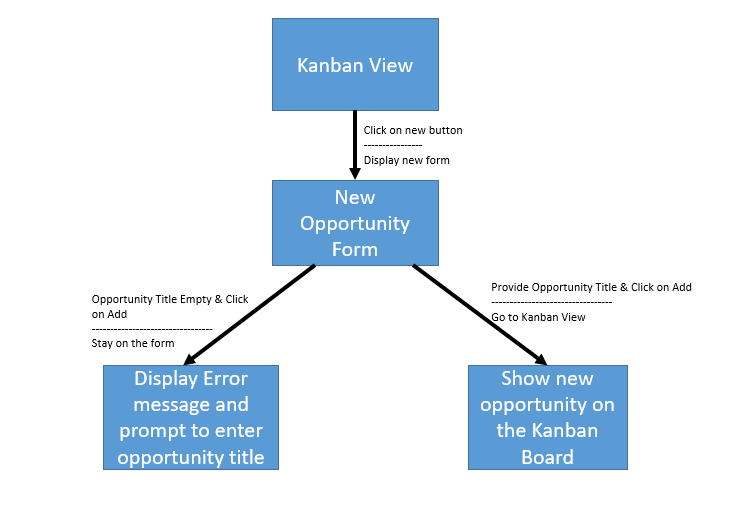
I have verified that only required field is Opportunity Title (Cannot be left empty but accepts anything as input, Also no maximum character limit). Rest of fields can be left empty or given a value (all forms of text inputs considered valid). So equivalence class partitions would be:

* Partition 1: Opportunity title is not provided (Invalid)
* Partition 2: Opportunity title is provided (Valid)

**Boundary Value Analysis:**

Boundary Values: 0 Characters, 1 Characters (No max limit)

**State Transition Diagram**



**Gherkin Test Cases**

1. **Scenario**: Create a new opportunity with only required fields

**Given** I am on the Kanban view of the Odoo CRM module

**When** I click on the "New" button and enter "New Bakery Order" in the "Opportunity Title" field

**And** I click the "Add" button

**Then** a new opportunity with the title "New Bakery Order" should be created in the "New" stage of the Kanban view

1. **Scenario**: Create a new opportunity with an existing contact

**Given** I am on the Kanban view of the Odoo CRM module

**And** there is an existing contact called "Azure Interior" in the drop-down list of the "Organization / Contact" field

**When** I click on the "New" button and enter "Wardrobes" in the "Opportunity Title" field

**And** I select “Azure Interior” from the drop-down list

**And** I click the "Add" button

**Then** a new opportunity with the title “Wardrobes” should be created for the contact "Azure Interior" in the "New" stage of the Kanban view

1. **Scenario**: Create a new opportunity with a new contact

**Given** I am on the Kanban view of the Odoo CRM module

**When** I click on the "New" button and enter "Wholesale Bread Order" in the "Opportunity Title" field

**And** I enter "Jane's Bakery" in the "Organization / Contact" field

**And** I enter "jane@janesbakery.com" in the "Email" field

**And** I enter "555-1234" in the "Phone" field

**And** I enter "10000" in the "Expected Revenue" field

**And** I click the "Add" button

**Then** a new opportunity with the title "Wholesale Bread Order" should be created for the new contact "Jane's Bakery" in the "New" stage of the Kanban view

1. **Scenario**: Attempt to create a new opportunity without entering a title

**Given** I am on the Kanban view of the Odoo CRM module

**When** I click on the "New" button

**And** I do not enter anything in the "Opportunity Title" field

**And** I click the "Add" button

**Then** the form should not be submitted

**And** an error message should appear stating that the "Opportunity Title" field is required

1. **Scenario**: Attempt to create a new opportunity with invalid expected revenue

**Given** I am on the Kanban view of the Odoo CRM module

**When** I click on the "New" button and enter "Invalid Revenue" in the "Opportunity Title" field

**And** I enter "-500" in the "Expected Revenue" field

**And** I click the "Add" button

**Then** the form should be submitted

**And** a new opportunity with the title "Invalid Revenue" should be created in the "New" stage of the Kanban view

**"Generate Leads" feature in Odoo CRM**

**(19L-1229-BCS-8A-3rd User Story and Related Work)**

**User Story:** As a sales representative, I want to generate leads for potential customers by specifying their companies, countries, and industries. When I click on the "Generate Leads" button, I expect the system to create a list of leads that match my criteria and display them in the CRM module.

**Equivalence Class Partitions:**

I have verified that required fields are No of Companies, Countries, and Industries. Rest of fields can be left empty or given a value (all forms of text inputs considered valid). So equivalence class partitions would be:

1. **Valid partitions:**

* Companies: At least one is entered
* Countries: At least one valid country is selected from the dropdown list
* Industries: At least one valid industry is selected from the dropdown list

1. **Invalid partitions:**

* Companies: 0 is entered
* Countries: No country is selected from the dropdown list
* Industries: No industry is selected from the dropdown list

**Boundary Value Analysis:**

**Partition 1: Companies (Minimum 1)**

* Valid Equivalence Class: 1 company
* Invalid Equivalence Class: 0 companies
* Boundary Values:
  + Lower Bound: 0 companies
  + Upper Bound: No upper bound

**Partition 2: Countries (Minimum 1 selected from Dropdown)**

* Valid Equivalence Class: 1 country selected from the dropdown
* Invalid Equivalence Class: No country selected from the dropdown
* Boundary Values:
  + Lower Bound: 0 countries selected from the dropdown
  + Upper Bound: No upper bound

**Partition 3: Industries (Minimum 1 selected from dropdown)**

* Valid Equivalence Class: 1 industry selected from the dropdown
* Invalid Equivalence Class: No industry selected from the dropdown
* Boundary Values:
  + Lower Bound: 0 industries selected from the dropdown
  + Upper Bound: No upper bound

**Partition 4: Filter on Size (can be left empty)**

* Valid Equivalence Class: Empty or any value
* Invalid Equivalence Class: None
* Boundary Values:
  + Lower Bound: None
  + Upper Bound: No upper bound

**Since Sales Team and Salesperson fields are optional, they do not have any partitions or boundary values to consider for this particular feature.**

**Gherkin Test Cases:**

1. **Scenario**: Generating leads with required fields only

**Given** I am on the Odoo CRM page

**When** I click on the "Generate Leads" button

**And** I fill in the required fields with valid data

**And** I click on the "Create Leads" button

**Then** I should see a success message

**And** the new leads should be created in the CRM

1. **Scenario**: Generating leads with missing required fields

**Given** I am on the Odoo CRM page

**When** I click on the "Generate Leads" button

**And** I leave one or more of the required fields empty

**And** I click on the "Create Leads" button

**Then** I should see an error message

**And** the new leads should not be created in the CRM

1. **Scenario**: Generating leads with invalid data

**Given** I am on the Odoo CRM page

**When** I click on the "Generate Leads" button

**And** I fill in the required fields with invalid data

**And** I click on the "Create Leads" button

**Then** I should see an error message

**And** the new leads should not be created in the CRM

1. **Scenario**: Generating leads with optional fields

**Given** I am on the Odoo CRM page

**When** I click on the "Generate Leads" button

**And** I fill in the required fields with valid data

**And** I also fill in one or more of the optional fields

**And** I click on the "Create Leads" button

**Then** I should see a success message

**And** the new leads should be created in the CRM

**And** the optional fields should be saved along with the lead data

1. **Scenario**: Generating leads with default tags

**Given** I am on the Odoo CRM page

**When** I click on the "Generate Leads" button

**And** I fill in the required fields with valid data

**And** I click on the "Create Leads" button

**Then** I should see a success message

**And** the new leads should be created in the CRM

**And** the default tags should be applied to the new leads.

**Project Chosen: Odoo – Lunch Module**

1. **Feature: Order Now (19L-2231)**

**Sameen’s First User Story:** As a company’s employee I should be able to place an order in Odoo’s lunch module for the items in my cart by clicking ‘Order Now’ button.

**Equivalence Class Partitioning:**

1. **Empty Cart:**
2. When the user clicks on the "Order Now" button and the cart is empty, the system should not place the order
3. **Valid Order:** When the user clicks on the "Order Now" button and all items in the cart are available and there is sufficient balance in the wallet to pay for the order, the order is successfully placed.
4. **Insufficient Balance**: When the user clicks on the "Order Now" button and there is not enough balance in the wallet to pay for the order, the system should not place the order and provide a message to the user indicating the issue.

**BVA:**

1. **Empty Cart:**

Lower Bound: The cart is completely empty.

On Bound: The cart has one or more items added to it.

Upper Bound: Not applicable.

1. **Valid Order:**

Lower Bound: All items in the cart are available and the wallet balance is exactly equal to the total order price.

On Bound: All items in the cart are available and the wallet balance is greater than or equal to the total order price.

Upper Bound: Not applicable.

1. **Insufficient Balance:**

Lower Bound: The wallet balance is exactly one unit less than the total order price.

On Bound: The wallet balance is less than the total order price but greater than one unit less than the total order price.

Upper Bound: Not applicable.

**Gherkin Test Cases:**

**Feature: Order Now**

**Background:** Given the company’s employee is on the product ordering page

1. Scenario: Employee has items in cart and sufficient balance

Given: Employee has items in their cart

And: Employee has sufficient balance in their wallet

When: Employee clicks on the "Order Now" button

Then: The system places the order

And: The employee receives a confirmation message

1. Scenario: Employee has an empty cart

Given: Employee has an empty cart

When: Employee clicks on the "Order Now" button

Then: The system does not place the order

And: The employee receives an error message that the cart is empty

1. Scenario: Employee has items in cart but insufficient balance

Given: Employee has items in their cart

And: Employee has insufficient balance in their wallet

When: Employee clicks on the "Order Now" button

Then: The system does not place the order

And: The employee receives an error message that they have insufficient balance

1. Scenario: Employee has an empty wallet

Given: Employee has an empty wallet

And: Employee has items in their cart

When: Employee clicks on the "Order Now" button

Then: The system does not place the order

And: The employee receives an error message that their wallet is empty

1. Scenario: Employee places multiple orders with different items

Given: Employee has items in their cart

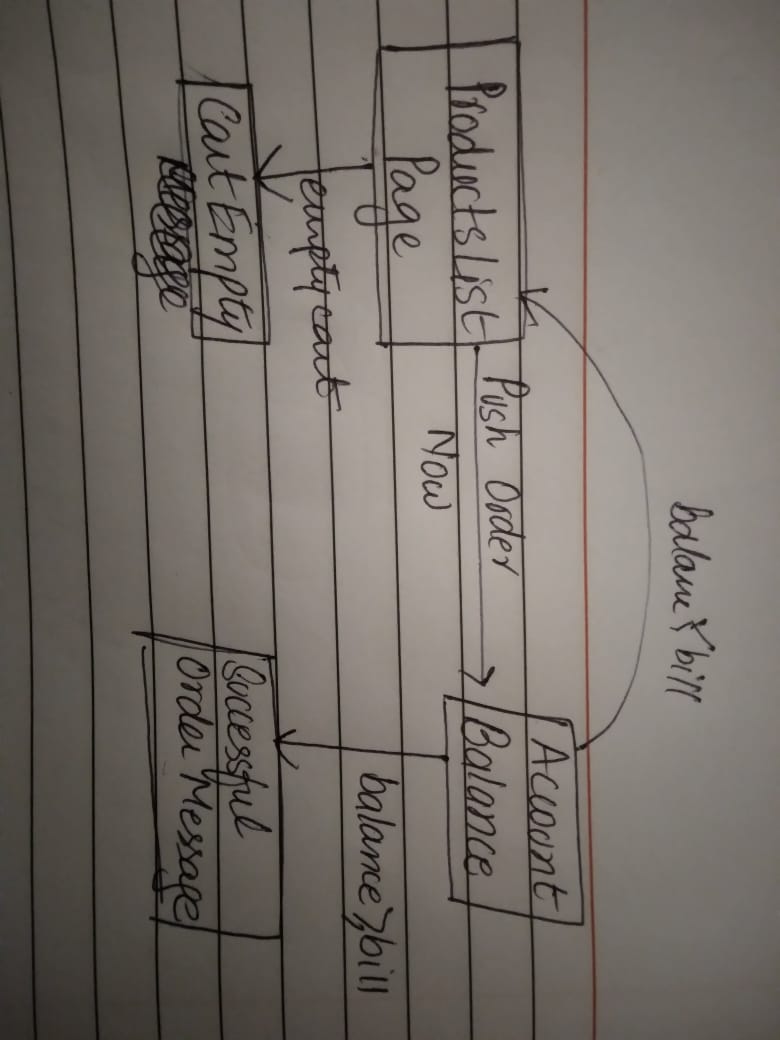
And: Employee has sufficient balance in their wallet

When: Employee clicks on the "Order Now" button multiple times for different items

Then: The system places each order separately

And: The employee receives a confirmation message for each order

**State Transition Diagram:**



1. **Feature: Configure Your Order (19L-2231)**

**Sameens Second User story:** As a company’s employee in Odoo’s lunch module, I should be able to select an item, add extras if available, provide a short description if any and add my item to the cart.

**Equivalence Class Partitioning:**

1. **No description:** The description is left empty
2. **Valid Description:** A alphanumeric string as a description with special characters if any
3. **Invalid Description:** Only special characters, Only integers
4. **Extras Selected:** valid inputs where the checkbox is selected
5. **Extras Not Selected**: checkbox is left empty

**BVA:**

1. **No Description:** **Empty Description**
2. **Valid Description:**

Minimum Value Test: In this test, the shortest possible valid input string for the "Valid Description" equivalence class will be used. This could include a description with a single alphanumeric character, such as "a" or "1".

Just Above Minimum Test: In this test, an input string that is just above the minimum length for the "Valid Description" equivalence class will be used. For example, if the minimum length is 1, then an input string with 2 alphanumeric characters, such as "ab" or "12", will be used.

Maximum Value Test: In this case, since there is no maximum length for the input string, there is no specific maximum value test to perform. However, it is still important to consider the potential impact of extremely long input strings on the system's performance and resources.

Special Characters Test: In this test, an input string with special characters will be used to verify that the system can handle special characters in a valid input for the "Valid Description" equivalence class. This could include characters such as "@", "#", "$", "%", "^", "&", "\*", "(", ")", "-", "+", "=", "/", "", "|", "{", "}", "[", "]", "'", """, "`", "~", "<", ">", ",", ".", "?", "!", and ":".

1. **Invalid Description:**

Minimum Value Test: In this test, the shortest possible input string for the "Invalid Description" equivalence class will be used. This could include a description with a single special character, such as "$".

Just Above Minimum Test: In this test, an input string that is just above the minimum length for the "Invalid Description" equivalence class will be used. For example, if the minimum length is 1, then an input string with 2 special characters, such as "$%", or "7&", will be used.

Maximum Value Test: Since there is no limit on the length of the input string, the maximum value test will involve using a very long input string that is composed solely of special characters, such as "$$$...$$$".

1. **Extras Selected:** Extras checkbox ticked
2. **Extras Not Selected:** Extras checkbox left empty

**Gherkin Test Cases:**

**Feature: Add to Cart**

**Background:** Given I am a company's employee logged in Odoo's lunch module

And I am on the products menu page

1. Scenario: Add item with extras to cart

Given I have selected an item from the menu

And the item has extras available

When I select the desired extras

And provide a short description

And click on the "Add to Cart" button

Then the item with selected extras and description should be added to the cart successfully

2. Scenario: Add item without extras to cart

Given I have selected an item from the menu

And the item has no extras available

When I provide a short description

And click on the "Add to Cart" button

Then the item with the provided description should be added to the cart successfully

3. Scenario: Add item with some selected extras to cart

Given I have selected an item from the menu

And the item has extras available

When I select some of the available extras

And provide a short description

And click on the "Add to Cart" button

Then the item with selected extras and description should be added to the cart successfully

4. Scenario: Add item with a long description to cart

Given I have selected an item from the menu

And the item has no extras available

When I provide a long description

And click on the "Add to Cart" button

Then the item with the provided description should be added to the cart successfully

5. Scenario: Add item with all available extras to cart

Given I have selected an item from the menu

And the item has all extras available

When I select all available extras

And provide a short description

And click on the "Add to Cart" button

Then the item with all selected extras and description should be added to the cart successfully

1. Scenario: Add item to cart without selecting any extras and providing no description

Given I have selected an item from the menu

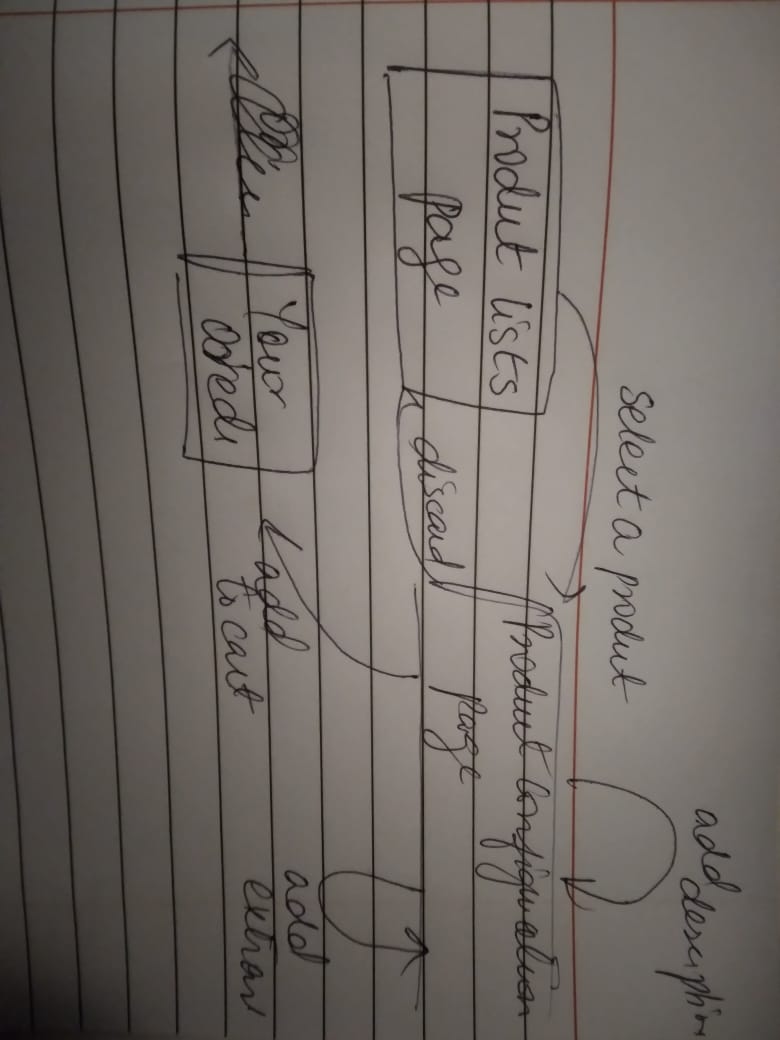
And I do not enter select any extras

And I give no description

And I click on the "Add to Cart" button

Then the item should be added to the cart without any extras and description

**State Transition table:**

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1. **Feature: Add new item to the menu (19L-2231)**

**Sameen’s Third User Story:** As a Lunch Manager in Odoo’s Lunch Module, I will be able to add a new item to the menu by providing its name, category, description, picture and price.

**Equivalence Class Partitioning:**

1. **Valid Name:**

Alphabetical string with no special characters and no spaces

Alphabetical string with spaces.

Lower bound: empty string

Upper bound: string with maximum possible length

2. **Valid Category:**

Alphabetical string with no special characters and no spaces

Alphabetical string with spaces.

Lower bound: empty string

Upper bound: string with maximum possible length

3. **Valid Description:**

String with alphanumeric characters and special characters.

Lower bound: empty string

Upper bound: string with maximum possible length

4. **Valid Picture:**

Image file in supported format.

Lower bound: image file of minimum size

Upper bound: image file of maximum size

5. **Valid Price:**

Non-negative decimal number.

Lower bound: 0.00 On bound: 0.01

Upper bound: maximum price allowed in the system

6. **Invalid Name:**

String with special characters or numbers only.

Non-alphabetical string.

Lower bound: empty string.

Upper bound: string with maximum possible length.

7. **Invalid Category**:

String with special characters or numbers only

Non-alphabetical string.

Lower bound: empty string.

Upper bound: string with maximum possible length.

8. **Invalid Description**:

String with only special characters or only numbers.

Lower bound: empty string.

Upper bound: string with maximum possible length.

9. **Invalid Picture:**

File that is not an image or not in a supported format.

**BVA:**

1. **Valid Name:**

Lower Bound: 1 character

On Bound: 255 characters

Upper Bound: 256 characters

1. **Invalid Name:**

Lower Bound: 0 characters

On Bound: 256 characters

Upper Bound: >256 characters

1. **Valid Category:**

Lower Bound: 1 character

On Bound: 50 characters

Upper Bound: 51 characters

1. **Invalid Category:**

Lower Bound: 0 characters

On Bound: 51 characters

Upper Bound: >51 characters

1. **Valid Description:**

Lower Bound: 1 character

On Bound: No maximum limit

Upper Bound: No maximum limit

1. **Invalid Description:**

Lower Bound: 0 characters

On Bound: No maximum limit

Upper Bound: No maximum limit

1. **Valid Picture:**

Lower Bound: 1 byte

On Bound: 50 MB

Upper Bound: 51 MB

1. **Invalid Picture:**

Lower Bound: 0 bytes

On Bound: 51 MB

Upper Bound: >51 MB

1. **Valid Price:**

Lower Bound: 0.01

On Bound: No maximum limit

Upper Bound: No maximum limit

1. **Invalid Price:**

Lower Bound: 0

On Bound: No maximum limit

Upper Bound: No maximum limit, if price is greater than the employee's remaining balance in the wallet

**Gherkin Test Cases:**

**Feature: Add a new item to the menu**

**Background:** Given I have logged in as Odoo's Lunch Manager

And I am on the Add a new Product page

1. **Scenario: Successfully add a new item to the menu**

When I provide the name, category, description, picture, and price for a new menu item

And I click on the "Add" button

Then the new item should be added to the menu

1. **Scenario: Adding an item without a name should result in an error**

When I provide category, description, picture, and price for a new menu item, but do not provide a name

And I click on the "Add" button

Then an error message should be displayed stating that a name is required

1. **Scenario: Adding an item without a category should result in an error**

When I provide name, description, picture, and price for a new menu item, but do not provide a category

And I click on the "Add" button

Then an error message should be displayed stating that a category is required

1. **Scenario: Adding an item without a price should result in an error**

When I provide name, category, description, and picture for a new menu item, but do not provide a price

And I click on the "Add" button

Then an error message should be displayed stating that a price is required

1. **Scenario: Adding an item with a duplicate name should result in an error**

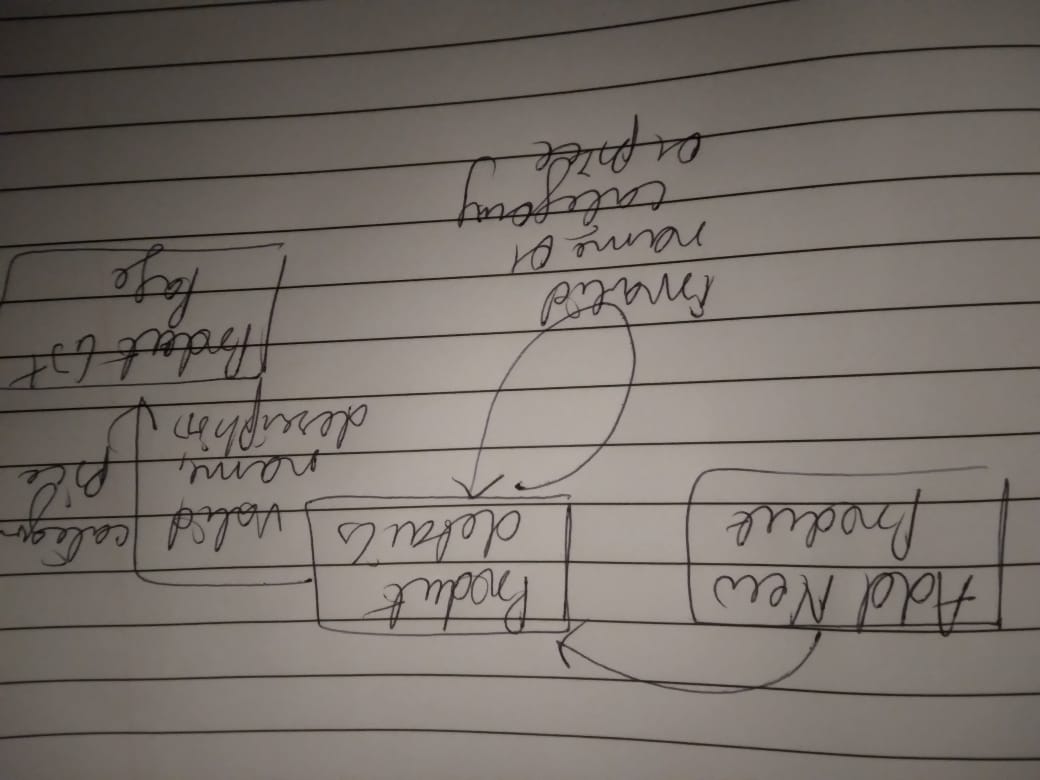
Given an existing item with the same name as the new item

When I provide name, category, description, picture, and price for a new menu item

And I click on the "Add" button

Then an error message should be displayed stating that the name is already in use

**State Transition Table:**

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