Here’s an expanded breakdown of **Portfolio Creation and Management** in the Stock Portfolio Management System:

**Portfolio Creation**

**Description**: Allow users to create multiple portfolios, which serve as individualized collections of stocks and investments they wish to track or manage separately.

**Steps:**

1. **Create Portfolio Form**:
   * **Inputs**: User provides portfolio name, description, and initial capital (optional).
   * **Validation**: Verify portfolio name is unique to the user, and all required fields are completed.
2. **Save Portfolio**:
   * Store portfolio details in the database with a unique portfolio ID, linking it to the user’s account.
   * Set the initial status of the portfolio as “active.”
3. **Confirmation**:
   * Notify the user of successful portfolio creation.
   * Display the newly created portfolio in the user’s portfolio dashboard.

**Adding Stocks to Portfolio**

**Description**: Users can add individual stocks to any of their portfolios by providing the stock ticker and quantity.

**Steps:**

1. **Search for Stock**:
   * User enters a stock ticker or company name to search.
   * Search results display available stocks, pulling data from a real-time market API.
2. **Select Stock and Quantity**:
   * User selects the desired stock from the search results.
   * Specify quantity and purchase price.
   * **Validation**: Ensure valid quantities (e.g., positive whole numbers).
3. **Add Stock**:
   * Add the stock entry to the portfolio, storing the ticker, purchase quantity, and price.
   * Update the portfolio’s total value based on this addition.
4. **Confirmation and Update**:
   * Confirm that the stock was added successfully.
   * Display the updated portfolio with the new stock entry and recalculated values.

**Editing Stocks within a Portfolio**

**Description**: Users can edit details for stocks within their portfolios, such as the quantity, purchase price, or sell part of their holdings.

**Steps:**

1. **Select Stock to Edit**:
   * User selects a stock from the portfolio for editing.
2. **Edit Quantity or Price**:
   * User updates the quantity or purchase price of the stock.
   * **Validation**: Check that new values are valid and logical (e.g., quantity cannot be negative).
3. **Update Portfolio**:
   * Update stock entry with new values.
   * Recalculate portfolio total value to reflect changes.
4. **Confirmation**:
   * Confirm the successful update.
   * Show updated portfolio values and details.

**Removing Stocks from Portfolio**

**Description**: Users may wish to delete a stock from their portfolio if they no longer hold it.

**Steps:**

1. **Select Stock for Removal**:
   * User selects a stock within the portfolio to remove.
2. **Remove Stock**:
   * Remove the selected stock entry from the portfolio.
   * Update portfolio’s total value to reflect the removal.
3. **Confirmation**:
   * Confirm successful removal of the stock.
   * Display the updated portfolio without the removed stock.

**Viewing Portfolio Details**

**Description**: Users can view comprehensive details of each portfolio, including all stocks, total value, and individual stock performance.

**Steps:**

1. **Select Portfolio**:
   * User selects a portfolio from their portfolio list to view its details.
2. **Display Portfolio Summary**:
   * Show portfolio’s total value, initial investment, and returns (if applicable).
   * Include key performance indicators like ROI, current value vs. purchase value, and asset allocation.
3. **Show Individual Stock Details**:
   * Display a list of all stocks within the portfolio, showing:
     + Stock ticker and name
     + Purchase price and quantity
     + Current price (real-time update via stock API)
     + Gains/losses per stock
     + Percentage of portfolio value
4. **Interactive Charts**:
   * Provide visualization of portfolio allocation, growth trends, or historical performance (e.g., pie chart for asset distribution, line chart for performance).

**Transferring Stocks between Portfolios**

**Description**: Users can transfer stocks from one portfolio to another to better organize their holdings.

**Steps:**

1. **Select Stocks to Transfer**:
   * User selects one or more stocks within a portfolio to transfer.
2. **Choose Destination Portfolio**:
   * User selects the portfolio to transfer stocks to.
   * **Validation**: Ensure user is not transferring stocks into the same portfolio.
3. **Transfer Stock(s)**:
   * Move stock entries to the destination portfolio.
   * Adjust the total values of both portfolios to reflect the transfer.
4. **Confirmation**:
   * Confirm successful transfer of stocks.
   * Show updated details for both source and destination portfolios.

This **Portfolio Creation and Management** flow gives users full control over building and managing their portfolios, allowing them to track real-time values, historical performance, and manage holdings effectively.