

# Bulk Lead Operations - Implementation Complete

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## Summary

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Added comprehensive bulk operations to the CRM lead management system, making it easier to manage, delete, and export leads in bulk. The system now supports both Kanban and Table views for optimal workflow management.

## Features Implemented

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### 1. View Toggle (Kanban/Table)

- **Kanban View:** Visual workflow management with drag-and-drop
- **Table View:** Detailed list view with bulk selection capabilities
- Users can switch between views based on their workflow needs
- Selection state is cleared when switching to Kanban view

### 2. Bulk Selection

- Checkbox selection in table view
- "Select All" checkbox in table header with indeterminate state support
- Visual feedback when items are selected (blue highlight)
- Selection count indicator in bulk actions toolbar

### 3. Bulk Delete

- Delete multiple leads at once
- Confirmation dialog shows count of leads to be deleted
- Cascading deletion:
  - Deletes all related `LeadActivity` records
  - Deletes all `SequenceAssignment` records
- Then deletes the leads themselves
- Loading state during deletion
- Success notification with count of deleted leads

### 4. Export Functionality

- **Export All:** Exports all leads with current filters applied
- **Export Selected:** Exports only selected leads
- CSV format with comprehensive fields:
  - ID, Name, Email, Phone, Company
  - Status, Priority, Source
  - Interest, Budget, Timeline
  - Assigned To (employee name and email)
  - Created At, Updated At, Notes
- Filename includes export date
- Loading state during export

## 5. Bulk Import

- Existing functionality maintained
- Accessible via “Import” button
- Supports CSV and Excel files

## 6. Enhanced UI/UX

- **Bulk Actions Toolbar:** Appears when items are selected
- Shows selection count
- Export Selected button
- Delete Selected button
- Clear selection button
- **View Toggle Buttons:** Clean toggle between Kanban/Table
- **Responsive Design:** Works on mobile and desktop
- **Loading States:** All async operations show loading indicators
- **Error Handling:** Proper error messages for failed operations

## API Endpoints

### POST /api/crm/leads/bulk-delete

Deletes multiple leads by ID.

#### Request Body:

```
{
  "leadIds": ["lead_id_1", "lead_id_2", "..."]
}
```

#### Response:

```
{
  "success": true,
  "deleted": 5,
  "message": "Successfully deleted 5 leads"
}
```

### GET /api/crm/leads/export

Exports leads to CSV format.

#### Query Parameters:

- leadIds (optional): Comma-separated list of lead IDs for selective export
- status (optional): Filter by status
- priority (optional): Filter by priority
- source (optional): Filter by source

**Response:** CSV file download

## Technical Details

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### Files Created

1. `app/api/crm/leads/bulk-delete/route.ts`
  - Handles bulk deletion with cascading deletes
  - Proper authorization checks
  - Returns deletion count
2. `app/api/crm/leads/export/route.ts`
  - Generates CSV from lead data
  - Supports filtering by IDs or criteria
  - Includes proper CSV escaping for special characters
  - Includes employee assignment information
3. `components/crm/Leads-table.tsx`
  - Table view component with selection
  - Checkbox in each row
  - "Select All" with indeterminate state
  - Click handlers for row and checkbox
  - Responsive column layout

### Files Modified

1. `app/dashboard/crm/page.tsx`
  - Added view mode state (kanban/table)
  - Added selected leads state
  - Added bulk operation handlers
  - Added view toggle UI
  - Added bulk actions toolbar
  - Conditional rendering of views
  - Bulk delete confirmation dialog

## Usage Guide

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### For Employees/Admins

#### Switch Between Views

1. Navigate to `/dashboard/crm`
2. Use the **Kanban/Table** toggle buttons at the top left

#### Select Leads (Table View)

1. Switch to **Table** view
2. Click checkboxes next to individual leads, or
3. Click the header checkbox to select all visible leads

#### Delete Multiple Leads

1. Select leads in table view
2. Click **Delete Selected** in the bulk actions toolbar
3. Confirm deletion in the dialog
4. Leads and all related data are permanently deleted

## Export Leads

1. **Export All:** Click “Export All” button (respects current filters)
2. **Export Selected:**
  - Select specific leads in table view
  - Click “Export Selected” in bulk actions toolbar
3. CSV file downloads automatically

## Import Leads

1. Click the **Import** button
2. Upload CSV or Excel file
3. Review results and errors
4. Leads are created with default status

## Security & Authorization

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- ☒ Only employees and admins can access bulk operations
- ☒ Authorization checked on all API endpoints
- ☒ Proper role validation via `employeeProfile`
- ☒ Cascading deletes prevent orphaned records

## Testing Performed

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### Functional Tests

- ☒ View toggle works correctly
- ☒ Select all/deselect all functions
- ☒ Individual selection works
- ☒ Selection count displays correctly
- ☒ Bulk delete removes correct leads
- ☒ Bulk delete cascades to related records
- ☒ Export all generates correct CSV
- ☒ Export selected exports only selected leads
- ☒ Import functionality still works
- ☒ Filters work with export

### UI/UX Tests

- ☒ Loading states appear during operations
- ☒ Success notifications show correct counts
- ☒ Error messages display for failures
- ☒ Confirmation dialogs prevent accidental deletion
- ☒ Bulk toolbar only appears when items selected
- ☒ Selection cleared when switching to Kanban
- ☒ Responsive design works on mobile

### Integration Tests

- ☒ TypeScript compilation passes
- ☒ Production build succeeds
- ☒ Dev server runs without errors
- ☒ All new endpoints included in build

## Next Steps / Future Enhancements

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### Potential Improvements

1. **Bulk Edit:** Update multiple leads at once (status, priority, assignment)
2. **Advanced Filters:** Save filter presets for common queries
3. **Bulk Assignment:** Assign multiple leads to an employee
4. **Bulk Sequence Enrollment:** Add selected leads to a sequence
5. **Export Format Options:** Support JSON, Excel formats
6. **Scheduled Exports:** Automate regular exports
7. **Undo Delete:** Soft delete with restore capability
8. **Audit Log:** Track who deleted what and when

### Build Status

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✓ **TypeScript Compilation:** Success (0 errors)

✓ **Production Build:** Success

✓ **Dev Server:** Running

✓ **New Routes Added:**

- /api/crm/leads/bulk-delete

- /api/crm/leads/export

### Conclusion

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The bulk lead operations feature is fully implemented, tested, and production-ready. The CRM now offers flexible views and powerful bulk management capabilities that significantly improve workflow efficiency for teams managing large numbers of leads.

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Implementation Date: October 28, 2025

Status: ✓ Complete and Production-Ready