1. Plant pre-allocation that can be confirmed or rejected by the employee:
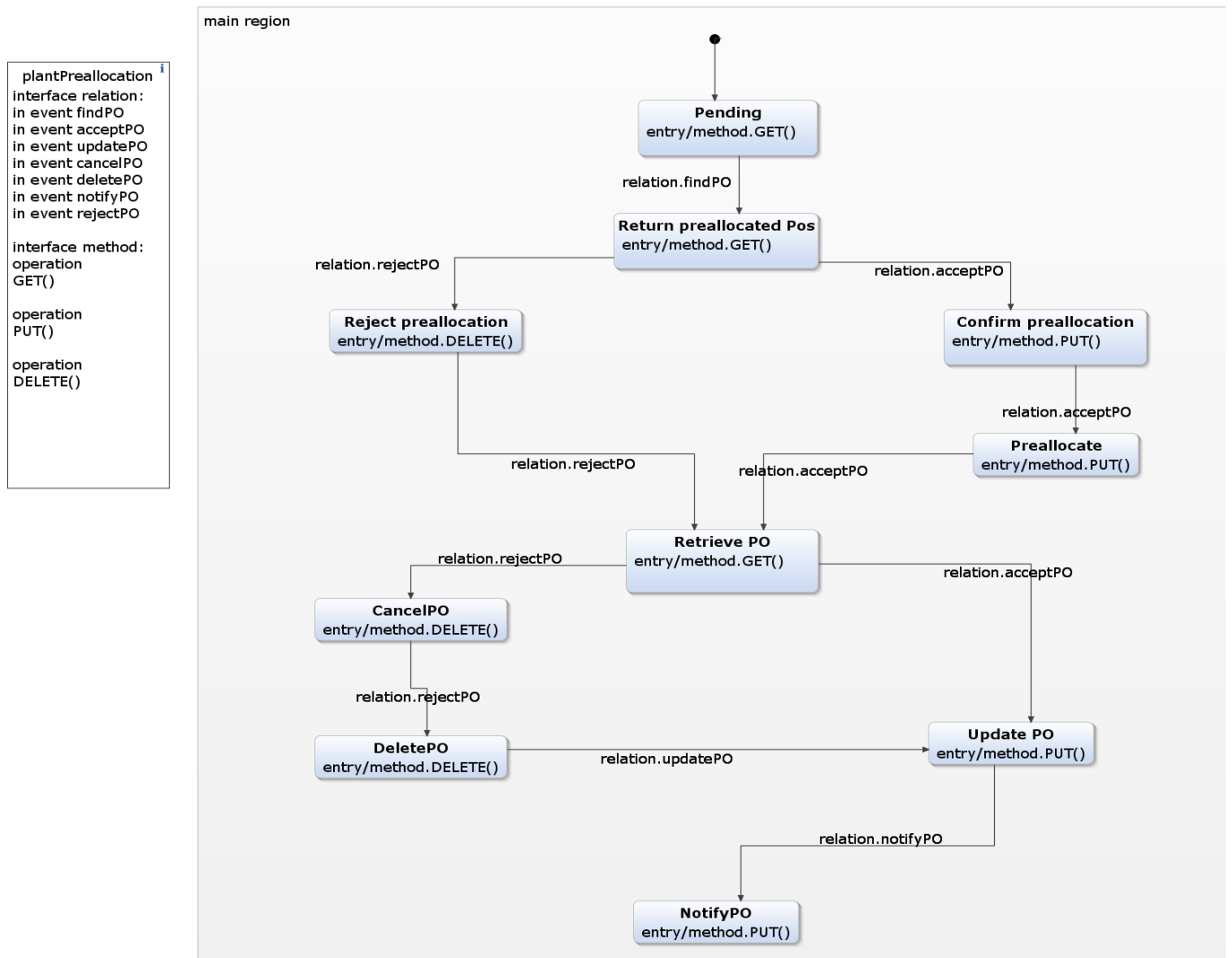
1. Operations implied by the sequence diagram that should be mapped into REST interactions:
   - Find available plants.
   - Create PO.
   - Find pre-allocated PO.
   - Confirm pre-allocation.
   - Reject pre-allocation.
   - Notify confirmation with (HTTP status 200).

2. State model associated with the resource purchase order:
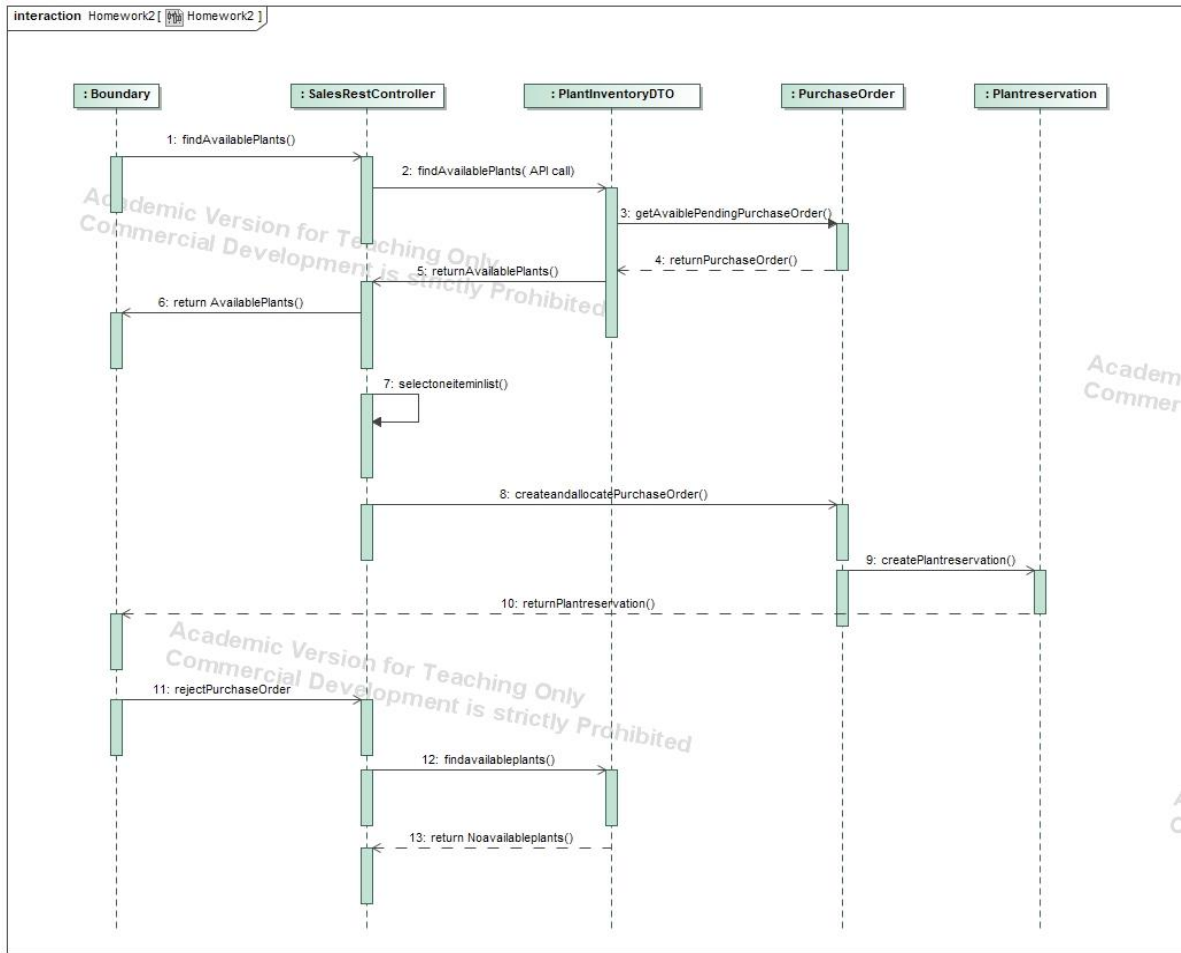
3. REST API summarization:

HTTP Verb	URI template	Relation	Current State	New State	Comments
GET	/api/allocate/plants	findPO	Pending	Return preallocated POs	Query pending lists
PUT	/api/allocate/orders/{id}/confirm	acceptPO	Confirm preallocation	Pre-allocate	By minimum one plant available.
GET	/api/allocate/orders/{id}/confirm	acceptPO	Retrieve PO	Retrieve PO	With a new status
PUT	/api/allocate/orders/{id}/confirm	acceptPO	Updating retrieved PO	Updated PO (OPEN)	With a new status
PUT	/api/allocate/orders/{id}/confirm	notifyPO	Updated PO (OPEN)	Notify success confirmation	Use (HTTP status 200)
DELETE	/api/allocate/orders/{id}/confirm	rejectPO	Reject preallocation	Rejected	No available plant found
GET	/api/allocate/orders/{id}/confirm	rejectPO	Rejected	Retrieve PO	
DELETE	/api/allocate/orders/{id}/confirm	rejectPO	Cancelling reservation	Deleting reservation	
PUT	/api/allocate/orders/{id}/confirm	updatePO	update PO	Update Rejected PO	
PUT	/api/allocate/orders/{id}/confirm	notifyPO	Updated PO	Notify successful deallocation	Use (HTTP status 200)

2. Direct Plant Allocation:

HTTP Verb	URI template	Relation	Current State	New State	Comments
GET	/api/sales/plants	findAvailablePlants		Return available plants	Query inventory
GET	/api/sales/orders/{id}	findPendingPO	Finding pending PO	Confirm pending PO	By minimum one plant available.
POST	/orders/{poId}/accept	acceptPO	Accepted	Select Plant to PO	
POST	/orders/{poId}/accept	acceptPO	Selected	Create plant reservation	

PUT	`/orders/{id}`	notifyPO	Created plant reservation	Notify success confirmation	HTTP status OK
DELETE	/orders/{poId}/reject	rejectPO	Rejected	Rejected	
DELETE	/orders/{poId}/reject	notifyPO	Rejected Status	Notify rejection	HTTP status

REST API Summarization Table

Sequence Diagram Direct Plant Allocation