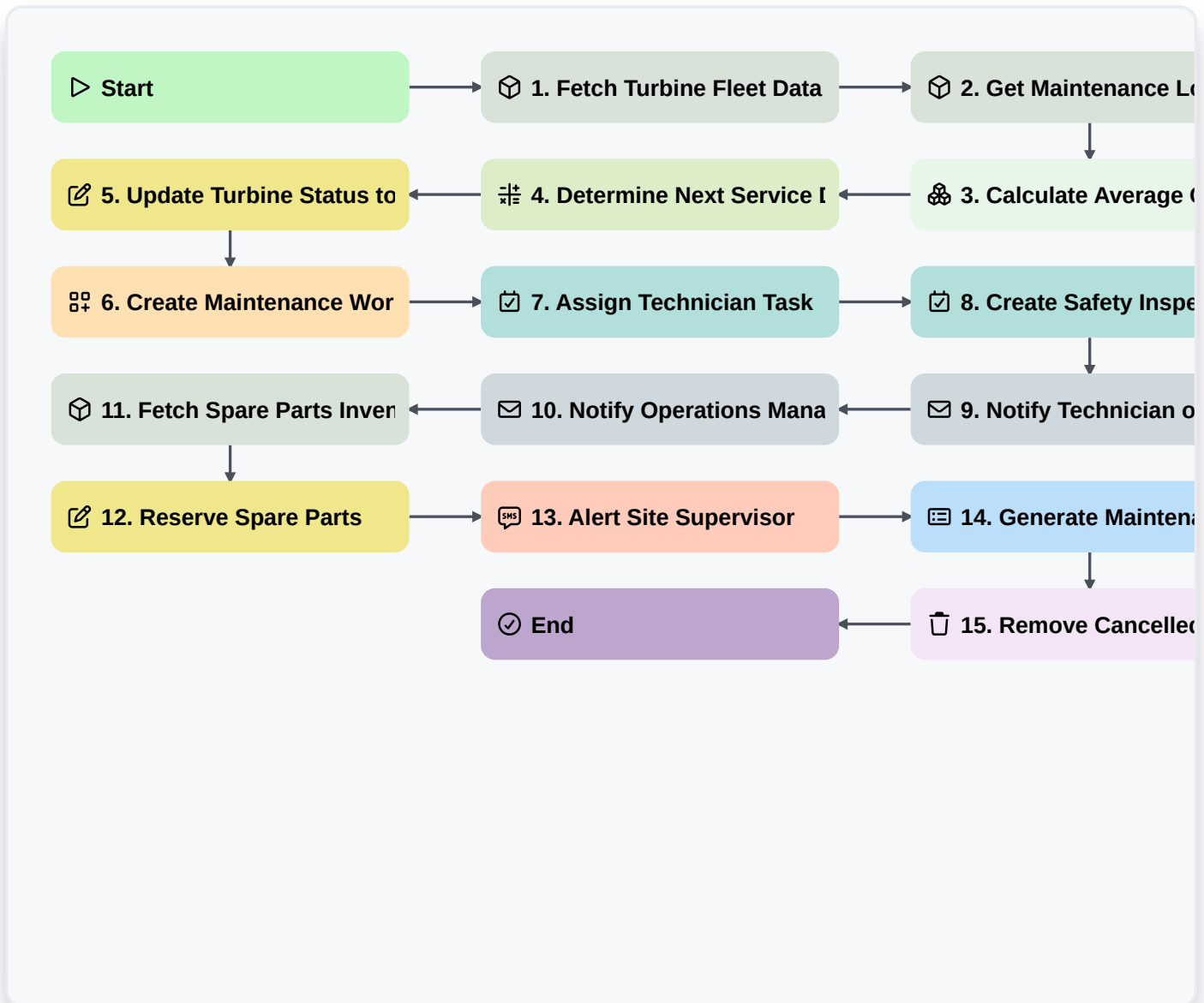


# Wind Turbine Maintenance Scheduling



## Start

Start of the Workflow/Process.

## 1. Fetch Turbine Fleet Data

Retrieve all active wind turbine records from the Turbine Data Model to identify units due for maintenance.

## 2. Get Maintenance Logs

Retrieve recent maintenance history and error logs for the selected turbine units.

## 3. Calculate Average Operating Hours

Calculate the average running hours across the fleet to determine wear-and-tear thresholds.

## 4. Determine Next Service Date

Calculate the upcoming service deadline by adding the maintenance interval (e.g., 6 months) to the last service date.

## 5. Update Turbine Status to 'Scheduled'

Update the status of the specific turbine entry in the Data Model to 'Scheduled' to prevent double-booking.

## 6. Create Maintenance Work Order

Create a new entry in the 'Work Orders' data model containing the scope of work and scheduled date.



### **7. Assign Technician Task**

Create a task for the Field Technician containing the work order details and checklist requirements.

### **8. Create Safety Inspection Task**

Create a high-priority task for the Safety Officer to approve the site access permit.

### **9. Notify Technician of Assignment**

Send an automated email to the assigned technician with the work order summary and location details.

### **10. Notify Operations Manager**

Send a notification to the Manager confirming that the maintenance window has been scheduled.

### **11. Fetch Spare Parts Inventory**

Check the Inventory Data Model to ensure required components (e.g., lubricants, filters) are in stock.

### **12. Reserve Spare Parts**

Update the inventory entry to decrease the 'Available Quantity' for the parts allocated to this task.

### **13. Alert Site Supervisor**

Send an SMS alert to the site supervisor regarding the upcoming turbine downtime.

### **14. Generate Maintenance Schedule Report**

Create a monthly maintenance roadmap report for stakeholders based on the updated work orders.

### **15. Remove Cancelled Work Orders**

Delete work order entries that have been flagged as redundant or errored during the scheduling process.

### **End**

End of the Workflow/Process.