

# **Hospital Equipment Maintenance Management System (HEMMS)**

Data Dictionary

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### DEPARTMENTS TABLE

Column Name	Data Type	Length	Constraints & Description
<b>DeptID</b>	NUMBER	5	PK, Generated by sequence
<b>DeptName</b>	VARCHAR2	50	NOT NULL, UNIQUE
<b>Location</b>	VARCHAR2	100	
<b>HeadOfDept</b>	VARCHAR2	100	
<b>Phone</b>	VARCHAR2	20	

### EQUIPMENT TABLE

Column Name	Data Type	Length	Constraints & Description
<b>EquipmentID</b>	NUMBER	10	PK, Generated by sequence
<b>SerialNumber</b>	VARCHAR2	50	UNIQUE, NOT NULL
<b>Name</b>	VARCHAR2	100	NOT NULL
<b>Category</b>	VARCHAR2	50	e.g., Computer, Printer, AC
<b>Manufacturer</b>	VARCHAR2	100	
<b>Model</b>	VARCHAR2	100	
<b>PurchaseDate</b>	DATE		
<b>PurchaseCost</b>	NUMBER	12,2	
<b>WarrantyExpiry</b>	DATE		
<b>Status</b>	VARCHAR2	20	CHECK (Active, Under Maintenance, OutOfService, Disposed)
<b>DeptID</b>	NUMBER	5	FK → DEPARTMENTS (ON DELETE SET NULL)

### TECHNICIANS TABLE

Column Name	Data Type	Length	Constraints & Description
<b>TechID</b>	NUMBER	6	PK, Generated by sequence
<b>FullName</b>	VARCHAR2	100	NOT NULL
<b>Contact</b>	VARCHAR2	30	Phone or email
<b>Specialty</b>	VARCHAR2	100	e.g., Electrical, IT Hardware
<b>HireDate</b>	DATE		
<b>IsActive</b>	CHAR	1	DEFAULT 'Y', CHECK ('Y','N')

### USERS TABLE

Column Name	Data Type	Length	Constraints & Description
<b>UserID</b>	NUMBER	6	PK, Generated by sequence
<b>Username</b>	VARCHAR2	30	UNIQUE, NOT NULL
<b>FullName</b>	VARCHAR2	100	
<b>Role</b>	VARCHAR2	20	CHECK ('Admin','Technician','DeptHead','RegularUser')
<b>DeptID</b>	NUMBER	5	FK → DEPARTMENTS (can be NULL for Admin)
<b>PasswordHash</b>	VARCHAR2	255	Stored as hashed value

### ALERTS\_ISSUES TABLE

Column Name	Data Type	Length	Constraints & Description
<b>AlertID</b>	NUMBER	10	PK, Generated by sequence
<b>EquipmentID</b>	NUMBER	10	FK → EQUIPMENT (ON DELETE CASCADE)
<b>ReportedBy</b>	NUMBER	6	FK → USERS
<b>DateReported</b>	DATE		DEFAULT SYSDATE
<b>IssueDescription</b>	VARCHAR2	1000	
<b>Priority</b>	VARCHAR2	20	CHECK ('Low','Medium','High','Critical')
<b>Status</b>	VARCHAR2	20	CHECK ('Open','Assigned','Resolved','Closed')

### MAINTENANCE TABLE

Column Name	Data Type	Length	Constraints & Description
<b>MaintenanceID</b>	NUMBER	10	PK, Generated by sequence
<b>EquipmentID</b>	NUMBER	10	FK → EQUIPMENT (ON DELETE CASCADE)
<b>TechID</b>	NUMBER	6	FK → TECHNICIANS
<b>MaintenanceDate</b>	DATE		Actual date maintenance was performed
<b>ScheduledDate</b>	DATE		For preventive maintenance
<b>MaintenanceType</b>	VARCHAR2	20	CHECK ('Preventive','Corrective','Inspection')
<b>Cost</b>	NUMBER	10,2	
<b>Description</b>	VARCHAR2	2000	Detailed work done
<b>Status</b>	VARCHAR2	20	CHECK ('Scheduled','InProgress','Completed','Cancelled')
<b>ApprovedBy</b>	NUMBER	6	FK → USERS (NULL until approved)