

One Stop Automotive ERD

SERVICE TABLE RELATIONSHIP	
• Service tickets must have one and only one Invoice	
• Service tickets can have zero to many parts	
• Parts can have only one service ticket	
• Service tickets may have zero labor cost	
• Repairs must have one and only one service	
• Service must have one and only one customer_id	
• Customer may have zero or many service tickets	
• Service must have one staff, and staff can have many service tickets	
• Service can have zero or many vehicles, vehicles can have zero or one service	

Parts table	
• parts must have one and only one inventory_id	
• Inventory may have zero to many parts	

Shop Table	
• Repairs may have one to many staff_id	
• Staff may have zero to many repairs	
• Repairs must have one or many car id	
• Cars can have one or many id	

Service	
PK	service_id SERIAL
	staff_id INTEGER
	repair_order VARCHAR
FK	parts_cost NUMERIC(7,2)
FK	labor_cost NUMERIC(7,2)
FK	customer_id INTEGER
	car_id INTEGER
	service_date TIMESTAMP

Parts	
PK	part_id SERIAL
	part_desc VARCHAR
	part_cost NUMERIC(7,2)

Shop	
PK	repair_id SERIAL
FK	staff_id INTEGER
	labor_cost NUMERIC(7,2)
	hours INTEGER
FK	car_id INTEGER

Vehicle Table	
• Cars may have zero to one inventory_id	
• Inventory_id may have zero to one many car_id	
• cars have zero to one invoice id	
• Invoice have zero to many cars	
• Sales must have one and only one car_id	

Customer	
PK	customer_id SERIAL
	first_name VARCHAR(50)
	last_name VARCHAR(50)
	address VARCHAR(150)
	phone_number VARCHAR(15)
	email VARCHAR(100)

Staff	
pk	staff_id SERIAL
	position VARCHAR(25)
	first_name VARCHAR(25)
	last_name VARCHAR(25)
	phone_number (50)
	email_address VARCHAR(100)

sales	
PK	sale_id SERIAL
FK	car_id INTEGER
FK	staff_id INTEGER
FK	customer_id INTEGER
	sale_date TIMESTAMPE
	msrp NUMERIC(7,2)

Finance	
PK	finance_id SERIAL
FK	staff_id INTEGER
FK	customer_id INTEGER
	credit_score INTEGER
	loan_amount NUMERIC(7,2)
	bank_name VARCHAR(100)
	routing_number INTEGER

Invoice	
PK	invoice_id SERIAL
	total_labor NUMERIC(7,2)
	total_parts NUMERIC(7,2)
	total_cost NUMERIC(7,2)
FK	service_id INTEGER
FK	sale_id INTEGER
FK	finance_id INTEGER
	paid_unpaid BOOLEAN
FK	car_id INTEGER
FK	customer_id INTEGER

Vehicle	
PK	car_id SERIAL
	license_number VARCHAR(20)
	VIN VARCHAR(20)
	year VARCHAR(8)
	make VARCHAR(50)
	model VARCHAR(50)

Inventory	
PK	inventory_id SERIAL
FK	car_id INTEGER
	location VARCHAR(50)
FK	part_id INTEGER

Staff Table	
• Staff may have zero to many finance ID	
• Finance must have one and only one	
• Staff may have zero to many sales	
• Sales must have one and only one staff	

Customer Table	
• Customershave zero to one Finance	
• Finance ID must have one and only one customer_id	
• Customer can have one to many invoice	
• Customer can have zero or one invoice	

Sale Table	
• Sales must have one and only one invoice	
• Invoices can have zero to many sales records	

Finance	
• Finance records must have one and only one invoice	
• Invoice can have zero to one Finance	