

SQL ALTER TABLE

New requirements:

Record number of wheels per car

Non-nullable integer

Can be 0 but not blank

	id [PK] integer 	year integer 	make text 	model text 
1	1	2020	Toyota	Prius
2	2	2012	Ford	Focus

```
ALTER TABLE cars
ADD wheel_count INT NOT NULL;
```

ERROR: column "wheel_count" of relation "cars" contains null values

ALTER TABLE

New requirements:

Record number of wheels per car

Non-nullable integer

Can be 0 but not blank

```
ALTER TABLE cars  
ADD wheel_count INT NOT NULL DEFAULT 4;
```

	id [PK] integer	year integer	make text	model text
1	1	2020	Toyota	Prius
2	2	2012	Ford	Focus



id [PK] integer	year integer	make text	model text	wheel_count integer
1	2020	Toyota	Prius	4
2	2012	Ford	Focus	4

Default column values

Columns with default values
can be omitted from INSERT

```
INSERT INTO cars (year, make, model)
VALUES (2020, 'Nissan', 'Altima');
```

id [PK] integer	year integer	make text	model text	wheel_count integer
1	2020	Toyota	Prius	4
2	2012	Ford	Focus	4



	id [PK] integer	year integer	make text	model text	wheel_count integer
1	1	2020	Toyota	Prius	4
2	2	2012	Ford	Focus	4
3	3	2020	Nissan	Altima	4

INSERT statements can
override default values

	id [PK] integer	year integer	make text	model text	wheel_count integer
1	1	2020	Toyota	Prius	4
2	2	2012	Ford	Focus	4
3	3	2020	Nissan	Altima	4

```
INSERT INTO cars (make, model, wheel_count)
VALUES ('Elio', 'P5', 3);
```



Overriding default values

INSERT statements can override default values

	id [PK] integer	year integer	make text	model text	wheel_count integer
1	1	2020	Toyota	Prius	4
2	2	2012	Ford	Focus	4
3	3	2020	Nissan	Altima	4

```
INSERT INTO cars (make, model, wheel_count)
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	id [PK] integer	year integer	make text	model text	wheel_count integer
1	1	2020	Toyota	Prius	4
2	2	2012	Ford	Focus	4
3	3	2020	Nissan	Altima	4
4	4	[null]	Elio	P5	3

Overriding default values

INSERT statements can override default values

	id [PK] integer	year integer	make text	model text	wheel_count integer
1	1	2020	Toyota	Prius	4
2	2	2012	Ford	Focus	4
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INSERT INTO cars (make, model, wheel_count)
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	id [PK] integer	year integer	make text	model text	wheel_count integer
1	1	2020	Toyota	Prius	4
2	2	2012	Ford	Focus	4
3	3	2020	Nissan	Altima	4
4	4	[null]	Elio	P5	3