CONSTRAINTS

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THERE ARE COMMON DIFFERENT TYPES OF CONSTRAINTS

NOT NULL CONSTRAINTS

PRIMARY KEY CONSTRAINTS

FOREIGN KEY CONSTRAINTS

CHECK CONSTRAINTS

PRIMARY KEY CONSTRAINTS

(AND UNIQUE CONSTRAINTS, A RELATED CONCEPT)

PRIMARY KEY CONSTRAINTS

(AND UNIQUE CONSTRAINTS, A RELATED CONCEPT)

StudentID	FirstName	LastName	Gender	Email

```
CREATE TABLE Students
(
StudentID INT NOT NULL AUTO_INCREMENT,
FirstName VARCHAR(30) NOT NULL,
LastName VARCHAR(30) NOT NULL,
Gender CHAR(1),
Email VARCHAR(30) NOT NULL,
PRIMARY KEY (StudentID)
)
```

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HOW IS A PRIMARY KEY DIFFERENT FROM ANY OTHER KEY?

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DBMS WILL OFTEN CONSTRUCT AN INDEX ON THE PRIMARY KEY EVEN WITHOUT BEING TOLD TO.

THIS GETS ASKED ON INTERVIEWS, SO REMEMBER THIS :-)

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NOPE! NOT POSSIBLE! THE CONSTRAINT WOULD BE VIOLATED, AND THE DATABASE WOULD THROW AN ERROR AND DISALLOW THE INSERTION

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CONSTRAINTS - SUCH AS THE PRIMARY KEY CONSTRAINT - ARE A KEY REASON DATABASES AND DBMS ROCK.

PRIMARY KEY CONSTRAINTS

(AND UNIQUE CONSTRAINTS, A RELATED CONCEPT)

StudentID	FirstName	LastName	Gender	Email

A PRIMARY KEY CAN BE DECLARED AFTER THE COLUMN SPECS..

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PRIMARY KEY CONSTRAINTS

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StudentID	FirstName	LastName	Gender	Email

..OR A SINGLE-COLUMN PRIMARY KEY CAN BE DECLARED INLINE

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PRIMARY KEY,
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)
```

PRIMARY KEY CONSTRAINTS (AND UNIQUE CONSTRAINTS, A RELATED CONCEPT)

ANY COLUMN OR SET OF COLUMNS COULD BE DECLARED UNIQUE

THE SYNTAX IS EXACTLY LIKE THAT OF A PRIMARY KEY -

A TABLE CAN HAVE ONLY 1 PRIMARY KEY
BUT ANY NUMBER OF UNIQUE CONSTRAINTS

PRIMARY KEY IMPLIES UNIQUENESS,
BUT THE REVERSE IS NOT TRUE

PRIMARY KEY CONSTRAINTS

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