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CREATE TABLE

The CREATE TABLE statement allows you to create and define a table.

The basic syntax for a CREATE TABLE statement is:

```
CREATE TABLE table_name
( column1 datatype null/not null,
  column2 datatype null/not null,
  ...
);
```

Each column must have a datatype. The column should either be defined as "null" or "not null" and if this value is left blank, the database assumes "null" as the default.

For example:

```
CREATE TABLE suppliers
( supplier_id    number(10) not null,
  supplier_name  varchar2(50) not null,
  contact_name   varchar2(50)
);
```

Practice Exercise #1:

Create a *customers* table that stores customer ID, name, and address information. The customer ID should be the primary key for the table.

Solution:

The CREATE TABLE statement for the *customers* table is:

```
CREATE TABLE customers
( customer_id    number(10)      not null,
  customer_name  varchar2(50)    not null,
  address        varchar2(50),
  city           varchar2(50),
  state          varchar2(25),
  zip_code       varchar2(10),
  CONSTRAINT customers_pk PRIMARY KEY
  (customer_id)
);
```

Practice Exercise #2:

Based on the *departments* table below, create an *employees* table that stores employee number, employee name, department, and salary information. The primary key for the *employees* table should be the employee number. Create a foreign key on the *employees* table that references the *departments* table based on the *department_id* field.

```
CREATE TABLE departments
( department_id      number(10)      not null,
  department_name    varchar2(50)    not null,
  CONSTRAINT departments_pk PRIMARY KEY
  (department_id)
);
```

Solution:

The CREATE TABLE statement for the *employees* table is:

```
CREATE TABLE employees
( employee_number    number(10)      not null,
  employee_name      varchar2(50)    not null,
  department_id      number(10),
  salary             number(6),
  CONSTRAINT employees_pk PRIMARY KEY
  (employee_number),
  CONSTRAINT fk_departments
  FOREIGN KEY (department_id)
  REFERENCES departments(department_id)
);
```