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Primary Keys

A **primary key** is a single field or combination of fields that uniquely defines a record. None of the fields that are part of the primary key can contain a null value. A table can have only one primary key.

Note: In Oracle, a primary key can not contain more than 32 columns.

A primary key can be defined in either a CREATE TABLE statement or an ALTER TABLE statement.

Using a CREATE TABLE statement

The syntax for creating a primary key using a CREATE TABLE statement is:

```
CREATE TABLE table_name
(column1 datatype null/not null,
column2 datatype null/not null,
...
CONSTRAINT constraint_name PRIMARY KEY (column1, column2, . column_n)
);
```

For example:

```
CREATE TABLE supplier
( supplier_id    numeric(10) not null,
  supplier_name varchar2(50) not null,
  contact_name  varchar2(50),
  CONSTRAINT supplier_pk PRIMARY KEY
  (supplier_id)
);
```

In this example, we've created a primary key on the supplier table called supplier_pk. It consists of only one field - the supplier_id field.

We could also create a primary key with more than one field as in the example below:

```
CREATE TABLE supplier
( supplier_id    numeric(10) not null,
  supplier_name varchar2(50) not null,
  contact_name  varchar2(50),
```

```
CONSTRAINT supplier_pk PRIMARY KEY (supplier_id,  
supplier_name)  
);
```

Using an ALTER TABLE statement

The syntax for creating a primary key in an ALTER TABLE statement is:

```
ALTER TABLE table_name  
add CONSTRAINT constraint_name PRIMARY KEY (column1, column2, ...  
column_n);
```

For example:

```
ALTER TABLE supplier  
add CONSTRAINT supplier_pk PRIMARY KEY (supplier_id);
```

In this example, we've created a primary key on the existing supplier table called supplier_pk. It consists of the field called supplier_id.

We could also create a primary key with more than one field as in the example below:

```
ALTER TABLE supplier  
add CONSTRAINT supplier_pk PRIMARY KEY (supplier_id, supplier_name);
```

Drop a Primary Key

The syntax for dropping a primary key is:

```
ALTER TABLE table_name  
drop CONSTRAINT constraint_name;
```

For example:

```
ALTER TABLE supplier  
drop CONSTRAINT supplier_pk;
```

In this example, we're dropping a primary key on the supplier table called supplier_pk.

Disable a Primary Key

The syntax for disabling a primary key is:

```
ALTER TABLE table_name  
disable CONSTRAINT constraint_name;
```

For example:

```
ALTER TABLE supplier  
disable CONSTRAINT supplier_pk;
```

In this example, we're disabling a primary key on the supplier table called supplier_pk.

Enable a Primary Key

The syntax for enabling a primary key is:

```
ALTER TABLE table_name  
enable CONSTRAINT constraint_name;
```

For example:

```
ALTER TABLE supplier  
enable CONSTRAINT supplier_pk;
```

In this example, we're enabling a primary key on the supplier table called supplier_pk.