Triggers

Aim: To study creating triggers

Theory:

The oracle engine allows user to define procedures that are implicitly executed by oracle engine itself, when an insert, update or delete is issued against a table. These procedures are called as triggers.

A trigger has three basic parts:

- A triggering event or statement
- A trigger restriction
- A trigger action

Triggering event or statement:

It is a SQL statement that causes a trigger to be fired. It can be insert, update or delete statement for a specific table.

Trigger Restriction:

It specifies a Boolean expression that must be true for trigger to fire. Its function is to conditionally control the execution of a trigger mentioned in the when clause.

Trigger action:

It is the PL/SQL code to be executed when a triggering statement is encountered and any trigger restriction evaluates to TRUE.

Syntax to create trigger:

```
create or replace trigger <triggername> before/after insert or update or delete on
<tablebook>
declare
<variable name> <data type>
begin
<executable statements>
end;
```

Syntax to drop trigger:

```
Drop trigger <triggername>
```

Exercise:

Q1. Create trigger for no transaction on weekends.

```
SQL> create or replace trigger sat_trigg before insert or update or delete on book
 declare
 date1 char(5);
 begin
 date1:=to_char(sysdate,'dy');
 if date1 in('sat','sun') then  raise_application_error(-20001,'try on weekdays');
 end if;
 end;
```

Q2. Drop the above trigger.

```
SQL> drop trigger sat_trigg;
```

Q1. What is the difference between triggers and stored procedures?
Q2. What is the difference between triggers and declarative integrity constraints?