1. Create a PROFILE named Combine where PASSWORD LIFE TIME will be 10 days, PASSWORD GRACE TIME will be 8 days, PASSWORD REUSE MAX will be 3, PASSWORD LOCK TIME will for 1 day, FAILED LOGIN ATTEMPTS for 2 times, PASSWORD REUSE TIME 10 day. Prove each profile by appropriate comment execution. Submit the consequent execution comment in text file. Also show the comment for showing your created profile.
2. ‘These two parameters are mutually exclusive; if you set a value for one of them, the other must not be set to UNLIMITED’-justify the statement.

### **a) Create a PROFILE named** Combine

#### SQL Script for Creating the Profile:

sql

-- Create the PROFILE named Combine

CREATE PROFILE Combine

LIMIT

PASSWORD\_LIFE\_TIME 10 -- Password expires in 10 days

PASSWORD\_GRACE\_TIME 8 -- Grace period of 8 days after expiry

PASSWORD\_REUSE\_MAX 3 -- Password cannot be reused until 3 new passwords have been used

PASSWORD\_LOCK\_TIME 1 -- Lock account for 1 day after limit reached

FAILED\_LOGIN\_ATTEMPTS 2 -- Lock account after 2 failed login attempts

PASSWORD\_REUSE\_TIME 10; -- Password cannot be reused for 10 days

#### **Explanation**:

1. **PASSWORD\_LIFE\_TIME 10**: Password must be changed every 10 days.
2. **PASSWORD\_GRACE\_TIME 8**: User has an additional 8 days after password expiry to change it.
3. **PASSWORD\_REUSE\_MAX 3**: At least 3 new passwords must be used before reusing an old one.
4. **PASSWORD\_REUSE\_TIME 10**: A password cannot be reused for 10 days.
5. **PASSWORD\_LOCK\_TIME 1**: Account remains locked for 1 day after hitting the failed login limit.
6. **FAILED\_LOGIN\_ATTEMPTS 2**: Locks the account after 2 consecutive failed login attempts.

#### **Execution Proof Comments**:

To demonstrate this profile and the settings, execute the following:

sql

-- View the profile settings

SELECT \* FROM DBA\_PROFILES WHERE PROFILE = 'Combine';

-- Test the profile creation by assigning it to a user

CREATE USER test\_user IDENTIFIED BY test123;

ALTER USER test\_user PROFILE Combine;

-- Test the profile with the user

-- Try failed logins to test FAILED\_LOGIN\_ATTEMPTS and PASSWORD\_LOCK\_TIME

-- Test password expiration with PASSWORD\_LIFE\_TIME and PASSWORD\_GRACE\_TIME

-- Test password reuse with PASSWORD\_REUSE\_MAX and PASSWORD\_REUSE\_TIME

### **b) Justify the Statement**

#### Statement:

"These two parameters are mutually exclusive; if you set a value for one of them, the other must not be set to UNLIMITED."

#### **Justification:**

1. **Mutual Exclusivity**:
   * Oracle prevents conflicting rules for password reuse:
     + **PASSWORD\_REUSE\_MAX** counts the number of new passwords before reuse.
     + **PASSWORD\_REUSE\_TIME** enforces a time limit before reuse.
   * If both are set to non-UNLIMITED values, it creates ambiguity:
     + For example: If PASSWORD\_REUSE\_MAX is 3 and PASSWORD\_REUSE\_TIME is 10 days, does reuse require 3 changes or 10 days? Both would conflict.
2. **Practical Example**:
   * Correct Setup:

sql

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ALTER PROFILE Combine LIMIT PASSWORD\_REUSE\_MAX 3 PASSWORD\_REUSE\_TIME UNLIMITED;

OR:

sql

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ALTER PROFILE Combine LIMIT PASSWORD\_REUSE\_TIME 10 PASSWORD\_REUSE\_MAX UNLIMITED;

* + Incorrect Setup (results in an error):

sql

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ALTER PROFILE Combine LIMIT PASSWORD\_REUSE\_MAX 3 PASSWORD\_REUSE\_TIME 10;

* + This restriction avoids logical contradictions and ensures clear enforcement of password policies.