

PASSVAULT - Multi-Pass Digital Wallet

PROJECT REPORT
for
21CSC205P – DATABASE MANAGEMENT SYSTEMS

Submitted by

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WITH SPECIALIZATION IN SOFTWARE ENGINEERING



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Project Report: PassVault - Multi-Pass Digital Wallet : (5B Component)

Transactions:

1. New User Creation and Setup

START TRANSACTION;

SAVEPOINT sp_create_user;

INSERT INTO USERS (User_Id, User_Name, Email, Password)

VALUES (8, 'Arjun Mehta', 'arjun.mehta@example.com', 'hashedpassword8');

INSERT INTO USERPROFILE (Profile_Id, User_Id, Phone_No, Bio, Profile_Picture)

VALUES (8, 8, '8901234567', 'Finance wizard and data lover.', 'arjun_profile.jpg');

INSERT INTO DASHBOARD (User_Id, Dashboard_Id)

VALUES (8, 'dashboard_008');

-- ROLLBACK TO sp_create_user; -- Optional recovery point

COMMIT;

Description: Adds a new user and links their profile and dashboard.

User_Id	User_Name	Email	Password
1	John Doe	john.doe@example.com	hashedpassword1
2	Jane Smith	jane.smith@example.com	hashedpassword2
3	Alice Johnson	alice.johnson@example.com	hashedpassword3
4	Bob Brown	bob.brown@example.com	hashedpassword4
5	Charlie Green	charlie.green@example.com	hashedpassword5
6	David White	david.white@example.com	hashedpassword6
7	Eva Black	eva.black@example.com	hashedpassword7
8	Arjun Mehta	arjun.mehta@example.com	hashedpassword8

Profile_Id	User_Id	Phone_No	Bio	Profile_Picture
1	1	1234567890	Tech enthusiast, loves coding!	john_profile.jpg
2	2	2345678901	Nature lover, and an avid reader.	jane_profile.jpg
3	3	3456789012	Travel addict, photographer.	alice_profile.jpg
4	4	4567890123	Music and sports lover.	bob_profile.jpg
5	5	5678901234	Passionate about food and cooking.	charlie_profile.jpg
6	6	6789012345	Gamer and tech geek.	david_profile.jpg
7	7	7890123456	Fitness freak and yoga lover.	eva_profile.jpg
8	8	8901234567	Finance wizard and data lover.	arjun_profile.jpg

User_Id	Dashboard_Id
1	dashboard_001
2	dashboard_002
3	dashboard_003
4	dashboard_004
5	dashboard_005
6	dashboard_006
7	dashboard_007
8	dashboard_008

2. Password Update with Notification

```

START TRANSACTION;
SAVEPOINT sp_password_update;

UPDATE PASSWORDMANAGER
SET Encrypted_Password = 'updatedencryptedpassword1'
WHERE User_Id = 1;

INSERT INTO NOTIFICATIONS (Notification_Id, User_Id, Message, Read_Status,
Timestamp)
VALUES (10, 1, 'Your password was updated successfully.', 'Unread', '2025-04-24
22:40:00');

-- ROLLBACK TO sp_password_update;

COMMIT;

```

Description: Updates encrypted password for user 1 and notifies them.

Password_Id	User_Id	Encrypted_Password	CreatedAt
1	1	updatedencryptedpassword1	2025-04-24 20:21:24
2	2	encryptedpassword2	2025-04-24 20:21:24
3	3	encryptedpassword3	2025-04-24 20:21:24
4	4	encryptedpassword4	2025-04-24 20:21:24
5	5	encryptedpassword5	2025-04-24 20:21:24
6	6	encryptedpassword6	2025-04-24 20:21:24
7	7	encryptedpassword7	2025-04-24 20:21:24

Notification_Id	User_Id	Message	Read_Status	Timestamp
1	1	Your payment was successful.	Read	2025-04-24 20:23:48
2	2	You have a new message.	Unread	2025-04-24 20:23:48
3	3	Your card will expire soon.	Unread	2025-04-24 20:23:48
4	4	A new transaction was made from your account.	Read	2025-04-24 20:23:48
5	5	Your backup is complete.	Unread	2025-04-24 20:23:48
6	6	New device login detected.	Read	2025-04-24 20:23:48
7	7	Password changed successfully.	Unread	2025-04-24 20:23:48
10	1	Your password was updated successfully.	Unread	2025-04-24 22:40:00
11	7	Your pending transaction was cancelled.	Unread	2025-04-24 22:50:00

3. Update Device IP (Safe Mode Disabled)

```
SET SQL_SAFE_UPDATES = 0;
START TRANSACTION;

SAVEPOINT sp_update_ip;

UPDATE DEVICEIPS
SET Last_IP = '192.168.1.100'
WHERE Device_Id = 101;

-- ROLLBACK TO sp_update_ip;

COMMIT;
```

Description: Updates device IP for Device_Id 101 after disabling safe mode.

DeviceIp_Id	Device_Id	Last_IP
1	101	192.168.1.100
2	102	192.168.1.2
3	103	192.168.1.3
4	104	192.168.1.4
5	105	192.168.1.5
6	106	192.168.1.6
7	107	192.168.1.7

4. Deactivate Expired Passes

```
START TRANSACTION;
SAVEPOINT sp_deactivate_passes;

UPDATE PASSBANKACCOUNT
SET Status = 'Inactive'
WHERE Pass_Id IN (
    SELECT Pass_Id FROM EXPIRATIONALERTS
    WHERE Expiration_Date < '2025-04-24');

-- ROLLBACK TO sp_deactivate_passes;
```

```
COMMIT;
```

Description: Marks passes as inactive if their alert expiration date has passed.

Pass_Id	Pass_Type	Pass_Name	Status	Description
1	Credit	MasterCard	Active	Standard credit card for general use.
2	Debit	Visa Debit	Inactive	Basic debit card with limited features.
3	Credit	AmEx Platinum	Active	Premium credit card with exclusive perks.
4	Debit	Chase Debit	Active	Debit card for basic transactions.
5	Credit	Capital One	Inactive	Cashback credit card with no annual fee.
6	Debit	Wells Fargo	Active	Debit card with global ATM access.
7	Credit	Discover	Inactive	Credit card with rewards and cashback.

5. Delete Failed Backup Recovery Records

```

START TRANSACTION;
SAVEPOINT sp_delete_failed_backup;

DELETE FROM BACKUPRECOVERY
WHERE Recovery_Status = 'Failed' AND User_Id = 6;

-- ROLLBACK TO sp_delete_failed_backup;

COMMIT;

```

Description: Removes failed backup recovery attempts for user 6.

Backup_Id	User_Id	Backup_Date	Recovery_Status	Backup_Location
1	1	2025-04-24 20:21:24	Completed	Cloud
2	2	2025-04-24 20:21:24	Failed	Local
3	3	2025-04-24 20:21:24	Completed	Cloud
4	4	2025-04-24 20:21:24	In Progress	External Drive
5	5	2025-04-24 20:21:24	Completed	Cloud
7	7	2025-04-24 20:21:24	Completed	Cloud

6. Cancel Pending Transaction and Notify

```

START TRANSACTION;
SAVEPOINT sp_cancel_transaction;

UPDATE TRANSACTIONS
SET Transaction_Status = 'Cancelled'
WHERE User_Id = 7 AND Transaction_Status = 'Pending';

INSERT INTO NOTIFICATIONS (Notification_Id, User_Id, Message, Read_Status,
Timestamp)
VALUES (11, 7, 'Your pending transaction was cancelled.', 'Unread', '2025-04-24
22:50:00');

-- ROLLBACK TO sp_cancel_transaction;

```

COMMIT;

Description: Cancels a pending transaction and alerts the user.

Transaction_Id	User_Id	Transaction_Date	Transaction_Status
1	1	2025-04-24 20:23:37	Completed
2	2	2025-04-24 20:23:37	Failed
3	3	2025-04-24 20:23:37	Completed
4	4	2025-04-24 20:23:37	Pending
5	5	2025-04-24 20:23:37	Completed
6	6	2025-04-24 20:23:37	Failed
7	7	2025-04-24 20:23:37	Cancelled

7. Reset QR Scan Flag

START TRANSACTION;

SAVEPOINT sp_reset_qr;

UPDATE QRSHARING

SET IsScanned = 0

WHERE User_Id = 2;

-- ROLLBACK TO sp_reset_qr;

COMMIT;

Description: Resets the IsScanned flag for all QR codes associated with user 2.

QRShare_Id	Pass_Id	User_Id	QRCode	CreatedAt	IsScanned
1	1	1	qrcode_001	2025-04-24 20:23:37	0
2	2	2	qrcode_002	2025-04-24 20:23:37	0
3	3	3	qrcode_003	2025-04-24 20:23:37	0
4	4	4	qrcode_004	2025-04-24 20:23:37	1
5	5	5	qrcode_005	2025-04-24 20:23:37	0
6	6	6	qrcode_006	2025-04-24 20:23:37	1
7	7	7	qrcode_007	2025-04-24 20:23:37	0
8	1	1	qrcode_008	2025-04-24 22:15:00	0 0

8. Update User Preference Category

START TRANSACTION;

SAVEPOINT sp_update_pref;

```
UPDATE userpreferences
SET Category = 'Security'
WHERE User_Id = 1 AND Category = 'Privacy';
```

```
-- ROLLBACK TO sp_update_pref;
COMMIT;
```

Description: Changes preference category from 'Privacy' to 'Security' for user 1.

Preference_Id	User_Id	Category
1	1	Security
2	2	Notifications
3	3	Security
4	4	Privacy
5	5	Notifications
6	6	Security
7	7	Privacy

9. Add New Bank and Link to User

```
START TRANSACTION;
SAVEPOINT sp_add_bank;

INSERT INTO BANK (Bank_Id, BankName)
VALUES (8, 'ICICI Bank');

INSERT INTO USERBANKACCOUNTS (Account_Id, User_Id, Bank_Id, Card_No,
Card_Type, Expiry_Date)
VALUES (9, 1, 8, '8765432198764321', 'Credit', '2027-01-31');

-- ROLLBACK TO sp_add_bank;
COMMIT;
```

Description: Adds ICICI Bank and associates it with a new user bank account.

1	Bank of America
2	Chase Bank
3	Wells Fargo
4	Citibank
5	HSBC
6	Bardays
7	Royal Bank of Canada
8	ICICI Bank

Account_Id	User_Id	Bank_Id	Card_No	Card_Type	Expiry_Date
1	1	1	1234567890123456	Credit	2025-12-31
2	2	2	2345678901234567	Debit	2026-06-30
3	3	3	3456789012345678	Credit	2025-11-30
4	4	4	4567890123456789	Debit	2026-03-31
5	5	5	5678901234567890	Credit	2025-10-31
6	6	6	6789012345678901	Debit	2026-08-31
7	7	7	7890123456789012	Credit	2025-07-31
8	1	2	1234-5678-9876-5432	Credit	2026-12-31
9	1	8	8765432198764321	Credit	2027-01-31

10. Add Expiration Alert and QR Share Record

```
START TRANSACTION;
SAVEPOINT sp_add_alert;
```

```
INSERT INTO EXPIRATIONALERTS (Alert_Id, Pass_Id, User_Id, Expiration_Date,
Status)
VALUES (8, 1, 1, '2026-01-01', 'Active');
```

```
COMMIT;
```

```
START TRANSACTION;
SAVEPOINT sp_add_qr;
```

```
INSERT INTO QRSHARING (QRShare_Id, Pass_Id, User_Id, QRCode, CreatedAt,
IsScanned)
VALUES (8, 1, 1, 'qrcode_008', '2025-04-24 22:15:00', 0);
```

```
-- ROLLBACK TO sp_add_qr;
COMMIT;
```

Description: Creates a new expiration alert and a corresponding QR sharing record.

1	1	1	2025-12-31	Active
2	2	2	2026-06-30	Expired
3	3	3	2025-11-30	Active
4	4	4	2026-03-31	Expired
5	5	5	2025-10-31	Active
6	6	6	2026-08-31	Expired
7	7	7	2025-07-31	Active
8	1	1	2026-01-01	Active

1	1	1	qrcode_001	2025-04-24 20:23:37	0
2	2	2	qrcode_002	2025-04-24 20:23:37	0
3	3	3	qrcode_003	2025-04-24 20:23:37	0
4	4	4	qrcode_004	2025-04-24 20:23:37	1
5	5	5	qrcode_005	2025-04-24 20:23:37	0
6	6	6	qrcode_006	2025-04-24 20:23:37	1
7	7	7	qrcode_007	2025-04-24 20:23:37	0
8	1	1	qrcode_008	2025-04-24 22:15:00	0

11. Update Backup Location

```

START TRANSACTION;
SAVEPOINT sp_update_backup;

UPDATE BACKUPRECOVERY
SET Backup_Location = 'Cloud'
WHERE Backup_Id = 7;

-- ROLLBACK TO sp_update_backup;
COMMIT;

```

Description: Modifies the backup location to 'Cloud' for backup ID 7.

1	1	2025-04-24 20:21:24	Completed	Cloud
2	2	2025-04-24 20:21:24	Failed	Local
3	3	2025-04-24 20:21:24	Completed	Cloud
4	4	2025-04-24 20:21:24	In Progress	External Drive
5	5	2025-04-24 20:21:24	Completed	Cloud
7	7	2025-04-24 20:21:24	Completed	Cloud