PASSWORD MANAGER

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Section:- 7A

Semester:-2nd

Subject code:-24CAP-152

Subject name:- Data structure using C

AIM :- To Develop Password Manager Using Data Structure in C

Procedure Code:-

```c
#include <stdio.h>

#include <string.h>

#define MAX_PASSWORDS 100

#define MAX_LENGTH 50

typedef struct {

    char website[MAX_LENGTH];
```

```c
    char username[MAX_LENGTH];
    char password[MAX_LENGTH];
} PasswordEntry;

PasswordEntry passwords[MAX_PASSWORDS];
int passwordCount = 0;

void addPassword() {
    if (passwordCount < MAX_PASSWORDS) {
        printf("Enter website: ");
        scanf(" %[^\n]",
passwords[passwordCount].website);
        printf("Enter username: ");
        scanf(" %[^\n]",
passwords[passwordCount].username);
        printf("Enter password: ");
        scanf(" %[^\n]",
passwords[passwordCount].password);
        passwordCount++;
        printf("Password added successfully.\n");
    } else {
```

```c
        printf("Password storage is full.\n");
    }
}


void viewPasswords() {
    if (passwordCount == 0) {
        printf("No passwords stored.\n");
        return;
    }
    printf("--- Stored Passwords ---\n");
    for (int i = 0; i < passwordCount; i++) {
        printf("Website: %s, Username: %s, Password: %s\n",
            passwords[i].website, passwords[i].username, passwords[i].password);
    }
}


void findPassword() {
    char searchWebsite[MAX_LENGTH];
    printf("Enter website to find password: ");
```

```c
    scanf(" %[^\n]", searchWebsite);

    for (int i = 0; i < passwordCount; i++) {
        if (strcmp(passwords[i].website, searchWebsite) ==
0) {
            printf("Website: %s, Username: %s, Password:
%s\n",
                passwords[i].website,
passwords[i].username, passwords[i].password);
            return;
        }
    }
    printf("Password for website '%s' not found.\n",
searchWebsite);
}

int main() {
    int choice;
    do {
        printf("\nPassword Manager\n");
        printf("1. Add Password\n");
```

```c
        printf("2. View Passwords\n");
        printf("3. Find Password\n");
        printf("4. Exit\n");
        printf("Enter your choice: ");
        scanf("%d", &choice);

        switch (choice) {
            case 1: addPassword(); break;
            case 2: viewPasswords(); break;
            case 3: findPassword(); break;
            case 4: printf("Exiting.\n"); break;
            default: printf("Invalid choice.\n");
        }
    } while (choice != 4);
    return 0;
}
```

OUTPUT

```
Password Manager
1. Add Password
2. View Passwords
3. Find Password
4. Exit
Enter your choice: 1
Enter website: Kirtee@123gmail.com
Enter username: KK@123
Enter password: mypasswormanager
Password added successfully.
```

```
Password Manager
1. Add Password
2. View Passwords
3. Find Password
4. Exit
Enter your choice: 2
--- Stored Passwords ---
Website: Kirtee@123gmail.com, Username: KK@123, Password: mypasswormanager
```

```
Password Manager
1. Add Password
2. View Passwords
3. Find Password
4. Exit
Enter your choice: 3
Enter website to find password: Kirtee@123gmail.com
Website: Kirtee@123gmail.com, Username: KK@123, Password: mypasswormanager

Password Manager
1. Add Password
2. View Passwords
3. Find Password
4. Exit
Enter your choice: 4
Exiting.


=== Code Execution Successful ===
```