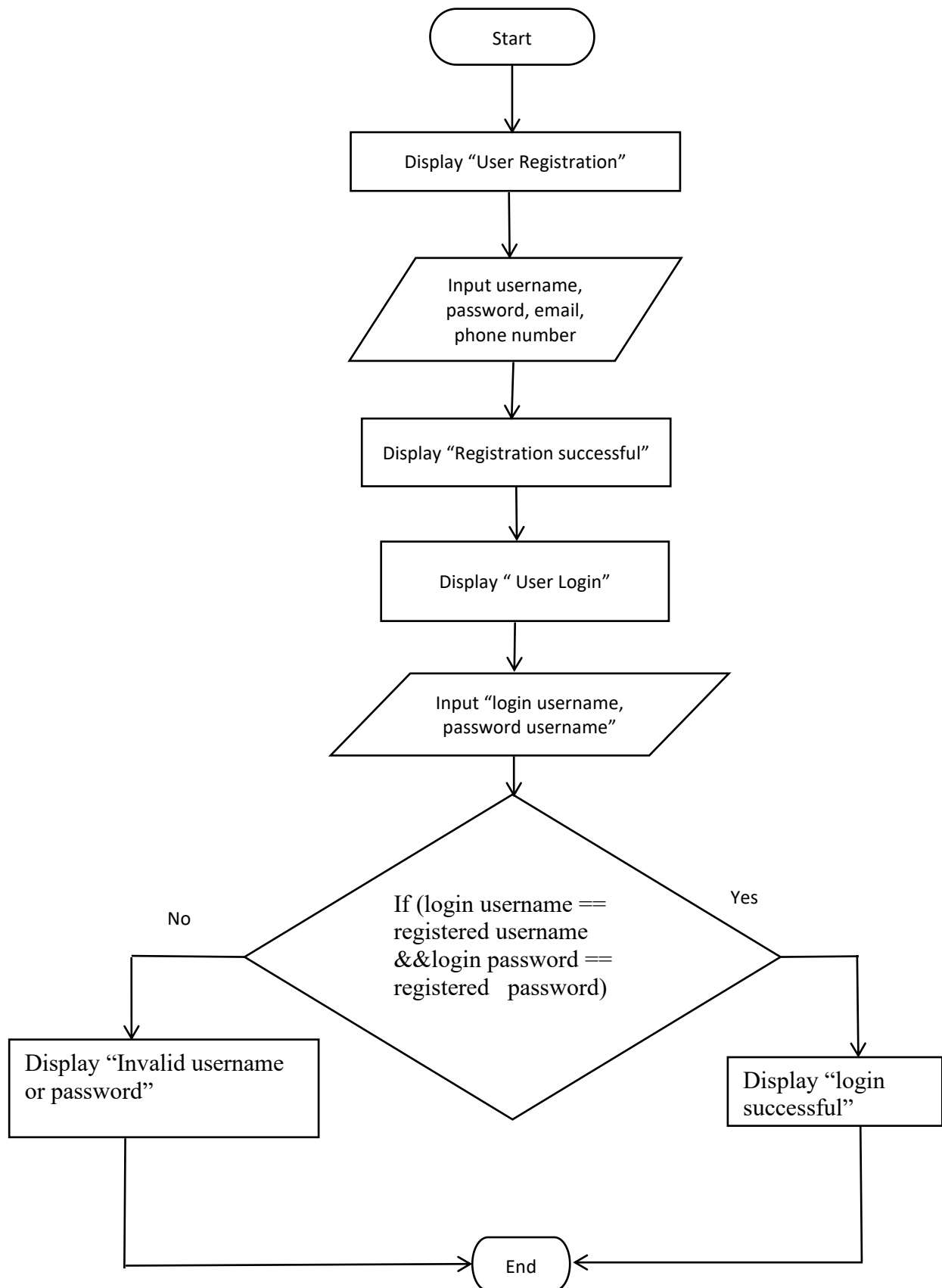**Requirement Description**

1. User Login and Registration

The system allows new users to register an account and existing users to log in using a valid username and password. This ensures that only authorized users can access the sport facilities booking system.

Pseudocode

1. Start
2. Display "User Registration"
3. Input username, password, email, phone number
4. Display "Registration successful"
5. Display "User Login"
6. Input login username
7. Input login password
8. If (login username == registered username && login password == registered password)THEN
        8.1 Display "login successful"
9. Else
        9.1 Display "Invalid username or password"
10. End if
11. end

Flowchart

```
                    ╭───────────╮
                    │   Start   │
                    ╰───────────╯
                          │
                          ▼
              ┌───────────────────────┐
              │ Display "User Registration" │
              └───────────────────────┘
                          │
                          ▼
                    ╱──────────────╲
                   ╱ Input username, ╲
                  ╱  password, email, ╲
                   ╲  phone number   ╱
                    ╲──────────────╱
                          │
                          ▼
              ┌───────────────────────────┐
              │ Display "Registration successful" │
              └───────────────────────────┘
                          │
                          ▼
              ┌───────────────────────┐
              │  Display " User Login"  │
              └───────────────────────┘
                          │
                          ▼
                    ╱──────────────╲
                   ╱ Input "login username, ╲
                    ╲ password username"  ╱
                    ╲──────────────╱
                          │
                          ▼
                      ╱◆◆◆◆◆◆◆╲
          No        ╱ If (login username ══ ╲      Yes
       ┌───────────◆ registered username    ◆───────────┐
       │            ╲ &&login password ══   ╱            │
       │             ╲ registered password)╱             │
       ▼              ╲◆◆◆◆◆◆◆◆◆◆╱               ▼
┌──────────────────┐                      ┌──────────────┐
│ Display "Invalid  │                      │ Display "login│
│ username or       │                      │ successful"  │
│ password"         │                      └──────────────┘
└──────────────────┘                              │
       │               ╭───────────╮              │
       └──────────────▶│    End    │◀─────────────┘
                       ╰───────────╯
```

2. View Facility Availability

The system allows users to view available sport facilities based on selected date and time before making a booking.

Pseudocode
1. ViewFacility()
2. Display facilities list
3. Input facility
4. If (facility == available) THEN
    4.1 Display "Facility Available"
5. Else
    5.1 Display "Facility Not Available"
6. End if
7. End

Flowchart

```
                    ┌─────────────────┐
                   (   ViewFacility    )
                    └─────────────────┘
                            │
                            ▼
              ┌───────────────────────────┐
              │   Display facilities list  │
              └───────────────────────────┘
                            │
                            ▼
                 ╱─────────────────────╲
                ╱     Input facility     ╲
                ╲─────────────────────╱
                            │
                            ▼
        Yes              ◇ If (facility              No
 ┌──────────────┐ ◄──── ◇    ==     ◇ ────► ┌──────────────┐
 │ Display       │       ◇ available) ◇      │ Display       │
 │ "Facility     │        ╲─────────╱        │ "Facility     │
 │ Available"    │                           │ Not           │
 └──────┬───────┘                            │ Available"    │
        │                                    └──────┬───────┘
        │                                           │
        │            ┌───────────┐                  │
        └──────────► (    End     ) ◄───────────────┘
                     └───────────┘
```