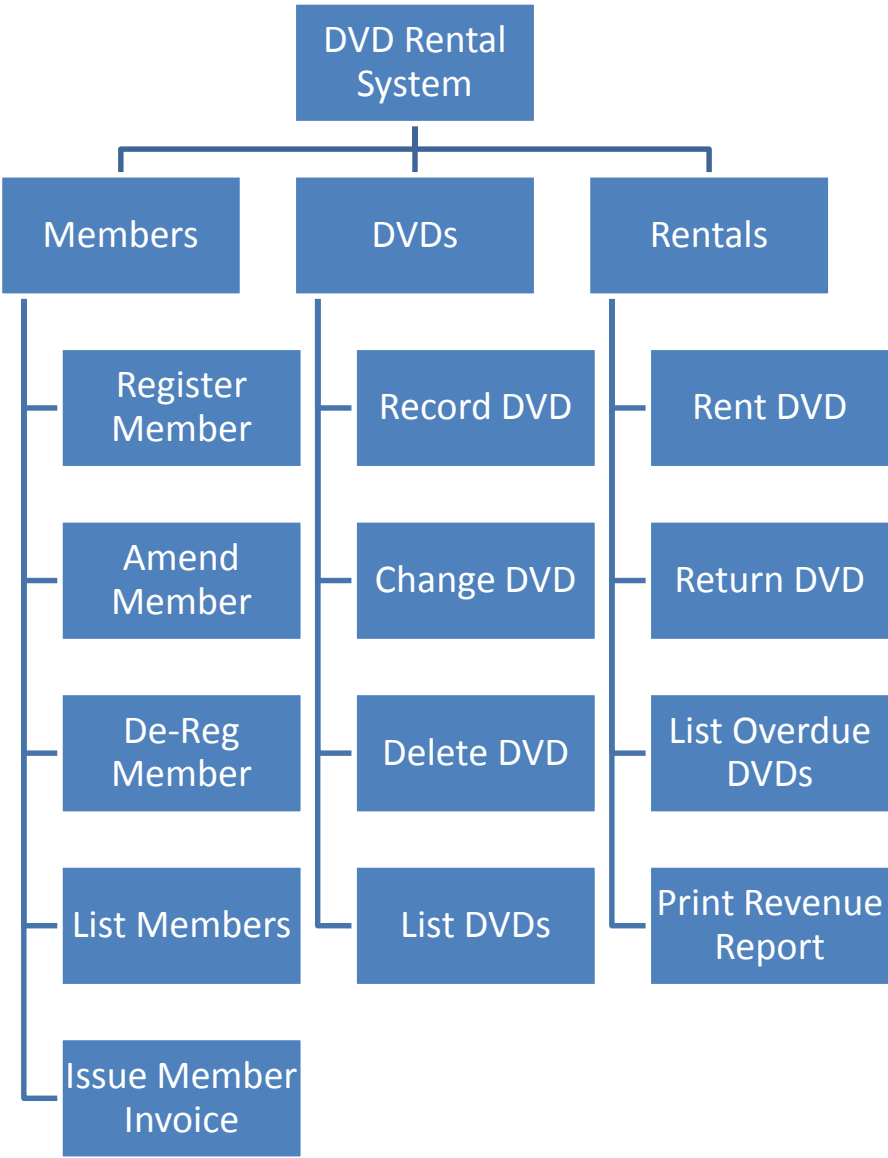


## 2. Hierarchy Chart

The functional components of the proposed system are shown below:



### **3. User Requirements**

The following user requirements have been identified for the system (DVDSys):

#### **3.1. The system performs member administration**

- 3.1.1 DVDSys will allow the details of each new member to be recorded
- 3.1.2 DVDSys will allow a member's details to be amended
- 3.1.3 DVDSys will allow the de-registration of a member
- 3.1.4 DVDSys will generate a member listing
- 3.1.5 DVDSys will issue invoices to members with overdue DVDs

#### **3.2. The system performs DVD management**

- 3.2.1 DVDSys will allow the details of each DVD to be recorded
- 3.2.2 DVDSys will allow a DVD's details to be changed
- 3.2.3 DVDSys will allow a DVD to be deleted
- 3.2.4 DVDSys will generate a DVD listing

#### **3.3. The system performs rental management**

- 3.3.1 DVDSys will record details of each rental transaction
- 3.3.2 DVDSys will process the return of DVD's
- 3.3.3 DVDSys will generate a listing of details for overdue DVD's
- 3.3.4 DVDSys will generate a revenue report to required specifications

## 4. System Requirements

The system requirements relating to the user requirements identified in section 3 are defined below:

### 4.2 Member Management

The system has a number of essential requirements in relation to the management of member data. The registration of new members, the updating of member details, the de-registration of a member, the generation of a member listing and the issuing of invoices to members with overdue DVDs must be addressed in this module.

#### 4.2.1 Register Member

Details of all members must be held in the system. Each new member is assigned a unique member identification number (Mem\_ID) which is assigned by the system. The user must enter surname, forename, address (Street, Town, County), telephone number and mobile phone number.

The user may cancel the transaction at any time.

When the user confirms the member registration, all input data is validated and any errors reported to the user. The function cannot proceed while errors exist. Once the data is valid, the registration date is assigned the current system date, the number of DVDs rented by the member is assigned a default value of zero and the member status is assigned a default value 'active'. The member details are then recorded in the Member File.

The user interface is reset and the user may register another member.

#### 4.2.2 Amend Member

Member details may change at any time (new address, telephone number, etc). The user must be able to apply those changes to the member details recorded in the Member File. When a change to member details is required, the member details are retrieved from the Member File and displayed on the user interface. The details may be retrieved using either the unique member identification number (Mem\_ID) or by entering the member surname.

If surname is used to retrieve the member details, the required member must be selected from the list of members with that surname.

If no details are found for the Mem\_ID or surname entered, then this must be reported to the user.

Once the member details are displayed on the user interface, the user may make any required amendments.

If the member has a status 'de-registered', then amendments are not allowed.

The user is NOT allowed to change Mem\_ID, the registration date, the number of DVDs currently on loan or the member status.

The user may cancel the transaction at any time.

When the user confirms the member amendment, all input data is validated and any errors reported to the user. The function cannot proceed while errors exist. Once the data is valid, the amended member details are recorded (overwritten) in the Member File.

The user interface is reset and the user may register another member.