Simplified Case Scenario: NP40 Book Rental

NP40 Book Rental is a newly setup local book rental company. It has a good collection of secondhand books for rental. Currently, it has three branches located in different parts of Singapore. The company is planning to set up a database to manage the data more efficiently.

Each branch is operated by a few staff, with one of the staff appointed as the branch manager. The branch manager is responsible for managing the branch. Some staff within a branch may not report directly to the manager, but to another member of staff known as the supervisor.

Books at NP40 are classified into different categories. Currently there are three categories available: "Fiction", "Non-Fiction" and "Children". For each book title, there is a need to keep track of the author(s), publisher and year the book was published. For each book title, one or more copies may be available for rental. The rental rates for different copies of the same book title may differ depending on the condition of the books. Usually, a newer copy has a higher rental rate than an older copy. To monitor the age of each copy of book, there is a need to know the date that the copy of book was made available for rental. Staff at each branch also has to monitor any copy of book that is missing or damaged.

Anybody who wishes to rent out books from any of the branches has to register as a member first. During registration, information about the member is captured, which include name, gender, email address, date joined, address and contact number. Upon successful registration, a member is issued a membership card with a unique member identification number printed on it. If the member is currently studying, information about his school is required. The member has to produce the card whenever he/she wishes to rent out books at any of the branches. Each member is entitled a maximum of five books for rental. Information about each loan transaction includes a unique loan number, date out, date due, date returned, rental rate and details of book copy.

The company is planning to expand its business by opening a few more branches in other parts of the island.