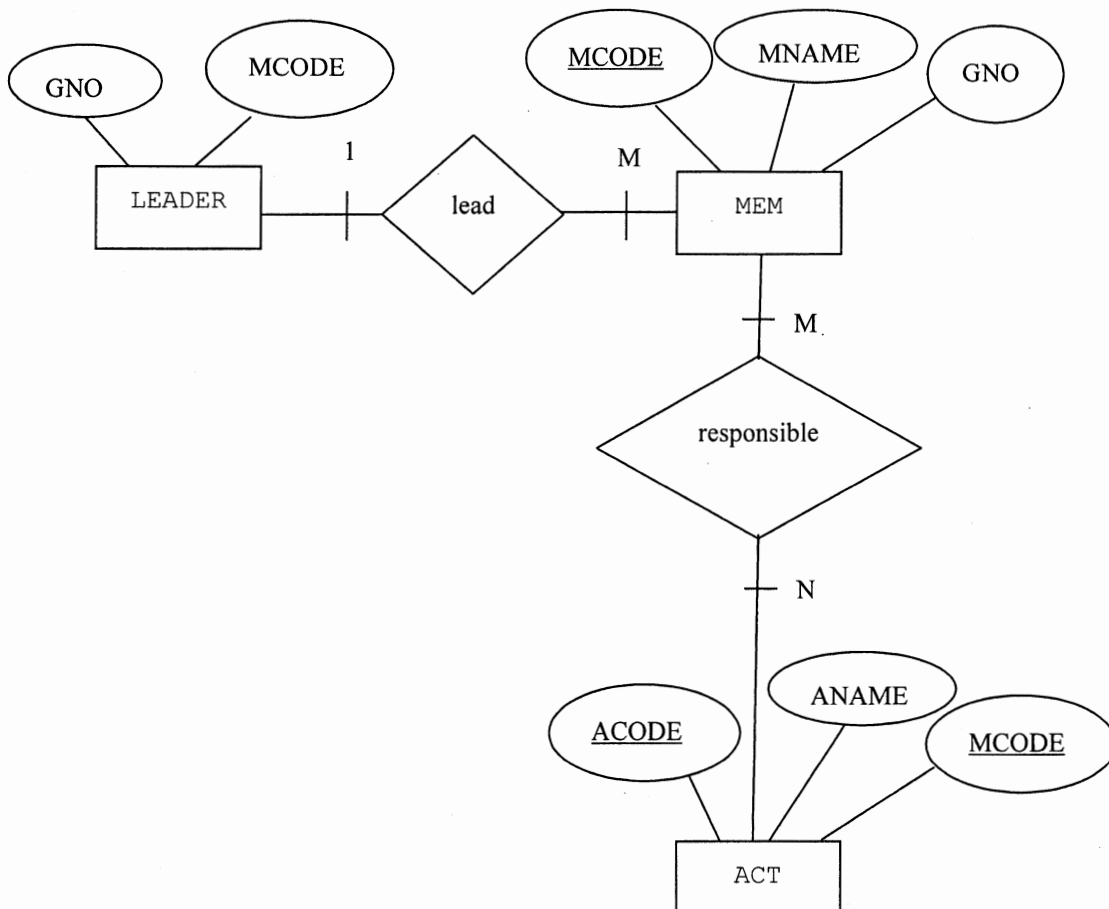


- (e) (i) BOOKING: VENUE, BDATE 1
 MINFO: MNO 1
- (ii) The list will show records of member information which is not related to the user. 1
 It violates the data privacy. 1
3. (a) (i) Redundancy: MNAME such as Mark is stored in several records unnecessarily. 1, 1
 Inconsistency: Change (MCODE, MNAME) and update MNAME in different queries may lead to data inconsistency. 1, 1
- (ii) Store ACODE and MCODE in ACT and 1
 create another table to store ACODE and ANAME. 1
- (b) (i) LIKE 1
- (ii) (MCODE, MNAME, GNO, LEADER) 1
 LEADER contains Y and N to illustrate whether the member is a group leader or not. 1
- (c) In Mark's proposal, the suffix characters occupy 1000 bytes. 1
 In Lily's proposal, there are 500 records in LEADER and their total size must larger than 1000 bytes. 1
 Hence, the storage capacity of Lily's proposal is larger. 1
- (d) Relationships 1
 Key fields 1
 1-M 1
 M-N 1



- | | Marks | | | | | | | |
|--|--------------|------|-----|-----------------|-------|------------|------|--|
| 4. (a) Give questionnaires to gather information from customers.
Interview the staff who operate the shops. | 1
1 | | | | | | | |
| (b) Sub-total column is not necessary because it can be calculated by the other data. | 1, 1 | | | | | | | |
| (c) (i) It is not in 2NF (1NF). There are partial dependencies in the relation such as 'PRICE depends on FLAV'. | 1, 1 | | | | | | | |
| (ii) | 1×3 | | | | | | | |
| <table border="1" style="border-collapse: collapse; width: 300px; margin-bottom: 10px;"> <tr> <td style="padding: 5px; text-align: center;"><u>CAT</u></td> <td style="padding: 5px; text-align: center;">TEMP</td> <td style="padding: 5px; text-align: center;">ING</td> </tr> </table> <table border="1" style="border-collapse: collapse; width: 200px; margin-bottom: 10px;"> <tr> <td style="padding: 5px; text-align: center;"><u>FLAV+CAT</u></td> <td style="padding: 5px; text-align: center;">PRICE</td> </tr> </table> <table border="1" style="border-collapse: collapse; width: 200px;"> <tr> <td style="padding: 5px; text-align: center;"><u>ING</u></td> <td style="padding: 5px; text-align: center;">MANU</td> </tr> </table> | <u>CAT</u> | TEMP | ING | <u>FLAV+CAT</u> | PRICE | <u>ING</u> | MANU | |
| <u>CAT</u> | TEMP | ING | | | | | | |
| <u>FLAV+CAT</u> | PRICE | | | | | | | |
| <u>ING</u> | MANU | | | | | | | |
| (d) It changes the structure of MAIN that the field TEMP will be erased. Tim cannot re-enter the data. | 2 | | | | | | | |
| (e) Under 'Membership', username and password should be entered and passed to the DBMS. A query with the data is executed and its result will activate the corresponding web pages (either membership web pages or login-failure web pages) for the user. | 3 | | | | | | | |

Example of data ①
 use of query ①
 description of the interaction ①