

Database Development

Project 3: Entity Relationship Diagrams

Case 1: ONLINE SURVEY Entities & Attributes:

1. Survey:

- SurveyID (Primary Key)
- Topic
- StartDate
- EndDate

2. Question:

- QuestionID (Primary Key)
- SurveyID (Foreign Key)
- Text

3. Choice:

- ChoiceID (Primary Key)
- QuestionID (Foreign Key)
- OptionText

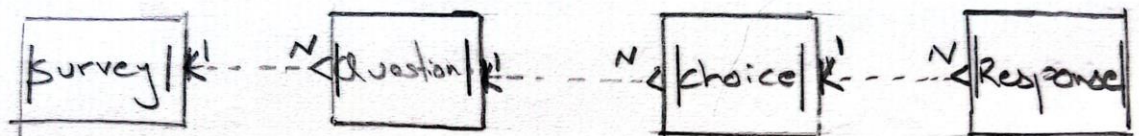
4. Response:

- ResponseID (Primary Key)
- ChoiceID (Foreign Key)

Relationships:

1. Each Survey has many Questions.
2. Each Question has many Choices.
3. Each Choice has many Responses.

ERD Structure:



Note:

- The text inside (Entity) is the entity's name.
- The arrows $\leftarrow \dots \leftarrow$ represent relationships with one, many, many & many, one & one, many & one.
- The number ('1', 'N') gives a clear indication of cardinality.

Case 2: JOB APPLICATION Entities & Attributes:

1. Applicant:

- ApplicantID (Primary Key)
- FullName
- Address
- Phone
- Email
- HRRepresentativeID (Foreign Key)

2. Job:

- JobID (Primary Key)
- Category
- Status (Open/Closed)

3. Application:

- ApplicationID (Primary Key)
- ApplicantID (Foreign Key)
- JobID (Foreign Key)
- ApplicationDate

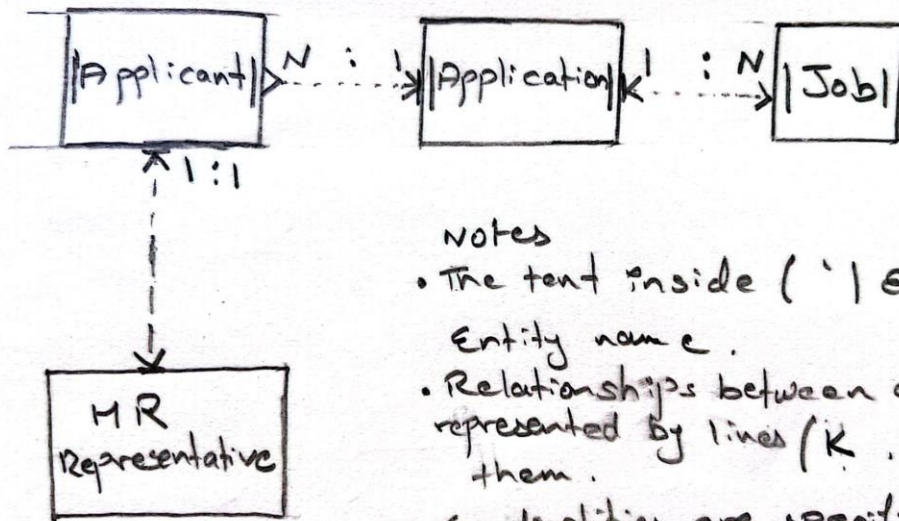
4. HRRepresentative:

- HRRepresentativeID (Primary Key)
- Name

Relationships:

1. Each Applicant can apply for multiple Jobs, but only once for each Job.
2. Each Job can have multiple Job Applications.
3. Each Application is processed by one HR representative, but one HR representative can process many applications.

ERD Structure:



Notes

- The text inside (' | Entity | ') are Entity name .
- Relationships between entities are represented by lines (K . >) connecting them .
- Cardinalities are specified along the lines , illustrating the nature .