DEPARTMENT OF BIOCHEMISTRY & BIOTECHNOLOGY
UNIVERSITY OF BARISHAL

Assignment on

Human Resource Management (HRM) Database

SUBMITTED TO
Md Samsuddoha Sams
Assistant Professor
Department of Computer Science & Engineering
University of Barishal

SUBMITTED BY
Sumaya Mir
05-002-015
Database-2
Department of Biochemistry & Biotechnology
University of Barishal

Date of Submission: 25.10.2024

Making Human Resource Management (HRM) Database for a Company

We have to develop a **Human Resource Management** database for a company. It requires that we have to add some information of departments, employees and projects including company. As mentioned that every department has many employees and each employee work for a department and each department is leading by only one manager who is also an employee. Initially a new department need not have any employee. Here, though an employee belongs a department but they can work for different projects at the same time. Each employee can work for different job position like Developer, Programmer and front-end designer.

Step-1: Identify the Entities Required

The company requires some information of **departments**, **employees** and **projects** including company. As mentioned that every department has many employees and each employee work for a department and each department is leading by only one **manager** who is also an employee. Initially a new department need not have any employee. Here, though an employee belongs a department but they can work for different projects at the same time. Each employee can work for different job position like Developer, Programmer and front-end designer.

Step-2: Identify the Attributes and Primary Key for each Entity

employee (id, name, email, dob, gender, designation, salary, joining_date, dept_id)
phone (id, phone_number, employee_id)
address (id, employee_id, post_code, upazilla, district, division)
department (id, name, contact_number, locations, manager_id)
manager (id,name,promote_date, department_id, address_id, phone_id)
project (id, name, description,manager_id, start_date, end_date, members, budget)

Step-3: Identify the relationship needed

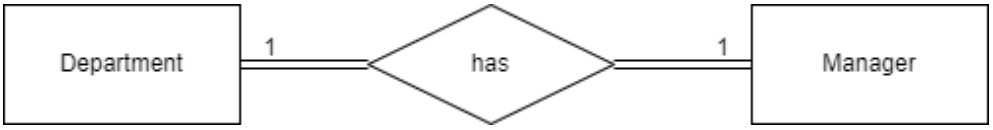
1. Departments-controls-Projects
2. Departments-manages-Employees
3. Departments-has-Managers
4. Employees-work_on-Projects
5. Employees-has-Phone
6. Employees-living-Address

Step-4: Identify the Cardinalirty Ratio and Participation

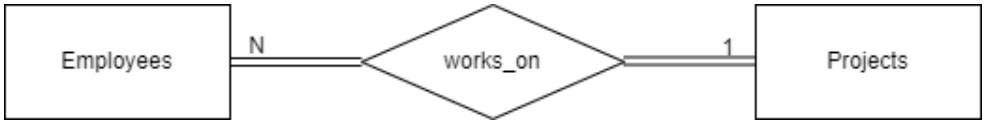
1. Department-controls-Projects

2. Department-manages-Employees

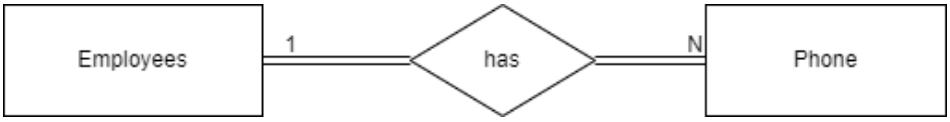
3. Departments-has-Managers



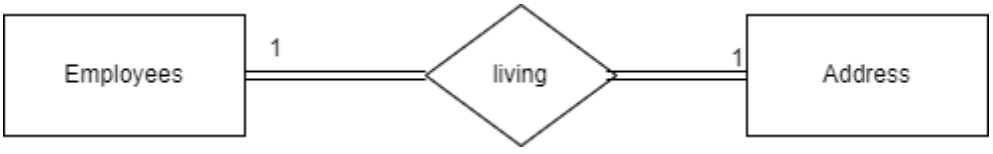
4. Employees-works_on-Projects



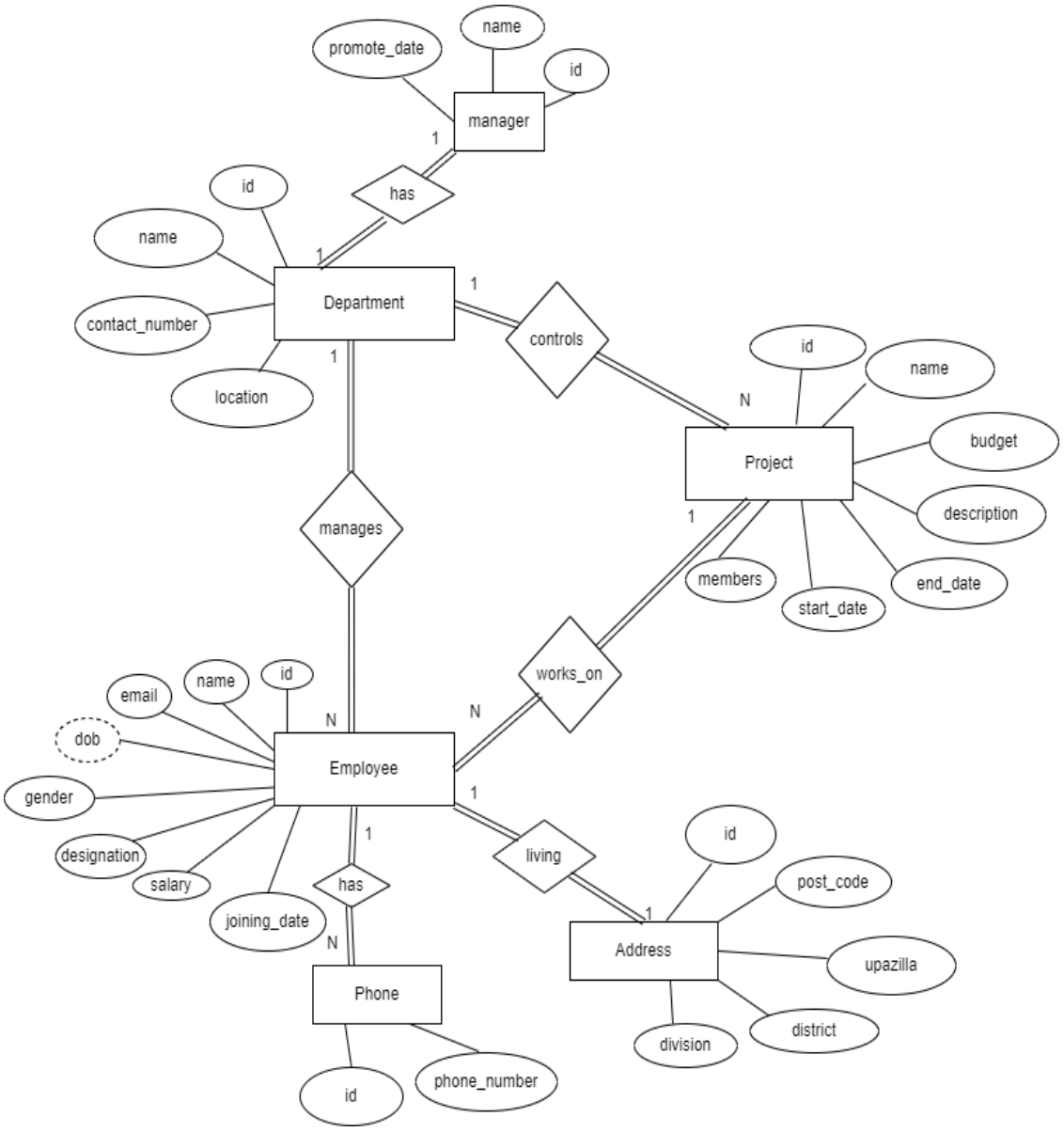
5. Employees-has-Phone



6. Employees-living-Address



Step-5: Draw the Diagram



Implementing the database in MySQL:

All tables with sample data:

1. department (id, name, contact_number, locations, manager_id)

id	name	contact_no	locations	manager_id
1	human resource	125784343	gazipur	2
2	administration	164266778	muhammadpur	1
3	marketing	18254390	narayanganj	3
4	organization development	163763275	Comilla	4
5	HR operations	13273542	Khulna	3
6	Employee Relations	17827634	Sylhet	1
7	L & D Development	163276434	Narayanganj	2

2. employee (id, name, email, dob, gender, designation, salary, joining_date, dept_id)

id	name	email	dob	gender	designation	salary	joining_date	dept_id
1	sadikur rahman	sad@gmail.com	1990-01-03	male	developer	567.87tk	2001-03-21	4
2	Rayhan haque	rah@gmail.com	1990-10-24	male	programmer	87909.786tk	2022-10-26	7
3	enamul haque	ena@yahoo.com	1995-10-23	male	front-end designer	654434.56	2024-10-16	4
4	rehana parvin	par@gmail.com	1997-10-21	female	manager	454654.423	2024-10-25	3
5	fahmida akter	akter@gmail.com	1999-10-17	female	assistant	4365.32	2024-10-31	2

3. project (id, name, description,manager_id, start_date, end_date, members, budget)

id	name	description	manager_id	start_date	end_date	members	budget
1	employee performance evaluation system	involves creating a system that tracks and evaluat...	1	2002-01-02	2022-02-03	30	54765.7867758
2	recruitment and applicant tracking system	focus on designing an automated system to streamli...	3	2015-10-22	2023-10-28	45	672536.165
3	employee on boarding and training portal	involves building an online prtal for new employee...	5	2016-10-19	2024-10-23	20	12564356.763
4	HR analytic dashboard	involves comprehensive hr analytics dashboard	4	2018-10-24	2024-10-28	15	6745637.54
5	employee self service portal	create a self service portal where employees can a...	2	2019-10-31	2024-11-28	50	65485563.675

4. manager (id,name,promote_date, department_id, address_id, phone_id)

id	name	promote_date	dept_id	address_id	phone_id
1	sadikur rahman	1990-01-03	1	3	2
2	nayma islam	2020-10-15	2	3	4
3	badhon akter	2018-10-11	4	5	1
4	sirajul haque	2021-10-15	2	5	4
5	sneha roy	2020-10-16	3	2	3

5. address (id, employee_id, post_code, upazilla, district, division)

id	employee_id	post_code	upazilla	district	division
1	4	c-6323	barishal sadar	barsihal	barishal
2	2	d-8234	bhola	barishal sadar	barishal
3	1	h-6733	raypasha	sirajgonj	dhaka
4	5	f-32453	norsingdi	ahmmedpur	comilla
5	3	c-21434	kocupara	nrayanganj	dhaka

6. phone (id, phone_number, employee_id)

id	number	employee_id
1	16873468	3
2	18273834	4
3	12324535	2
4	124354654	3
5	123243	1