

DATA REQUIREMENTS FOR HR DATABASE

Introduction:

This document gives the information about the data requirements that are used to create a database we can manage entities and relationships such as regions, countries, locations, departments, jobs, employees and job history for a company. The system is created to store and manage the data related to Human Resources system in a company.

Data Requirements:

Table Name	Column Name	Data Type
REGIONS	region_id	NUMBER
	region_name	VARCHAR2
COUNTRIES	country_id	CHAR
	country_name	VARCHAR2
	region_id	NUMBER
LOCATIONS	location_id	NUMBER
	street_address	VARCHAR2
	postal_code	VARCHAR2
	city	VARCHAR2
	state_province	VARCHAR2
	country_id	CHAR
DEPARTMENTS	department_id	NUMBER
	department_name	VARCHAR2
	manager_id	NUMBER
	location_id	NUMBER
JOBS	job_id	VARCHAR2
	job_title	VARCHAR2
	min_salary	NUMBER
	max_salary	NUMBER

Table Name	Column Name	Data Type
EMPLOYEES	employee_id	NUMBER
	first_name	VARCHAR2
	last_name	VARCHAR2
	email	VARCHAR2
	phone_number	VARCHAR2
	hire_date	DATE
	job_id	VARCHAR2
	salary	NUMBER
	commission_pct	NUMBER
	manager_id	NUMBER
	department_id	NUMBER
JOB HISTORY	employee_id	NUMBER
	start_date	DATE
	end_date	DATE
	job_id	VARCHAR2
	department_id	VARCHAR2

Data Type Description:

- 1.NUMBER: A number value requires from 1 to 22 bytes. Data types derived from number integer, decimal, small and real.
- 2.VARCHAR2: Variable-length character string having maximum length size bytes or characters. Maximum size is 4K bytes or 4K characters and minimum size is 1 byte or 1 character.
- 3.CHAR: Fixed-length character data of length size bytes or characters. Maximum size is 2K byte and minimum or default size is 1 byte.
- 4.DATE: Date valid range from Jan 1,4712 BC to Dec 31,9999 AD.The default format is dd-mon-yy.The size is fixed at 7 bytes.

Relationships Description:

The relationships between the tables are:

- One region can have many countries
- One country can belong to only one region
- One country can have many locations
- One location can belong to only one country
- One location can have many departments
- One department can belong to only one location

- One department can have many employees
- One employee can belong to only one department
- One job can have many employees
- One employee can have only one job
- One employee can have only one manager
- One manager can have many employees
- One department can have only one manager
- One manager can manage only one department
- One employee can have many job histories
- One job history can belong to only one employee

Cardinality:

The Cardinality of above relations is tabulated as follow:

RELATIONSHIP	CARDINALITY
Region – Countries	1:N
Country -- Region	1:1
Country -- Locations	1:N
Location -- Country	1:1
Location -- Departments	1:N
Department -- Location	1:1
Department -- Employees	1:N
Employee -- Department	1:1
Job -- Employees	1:N
Employee -- job	1:1
Employee -- Manager	1:1
Manager -- Employees	1:N
Department -- Manager	1:1
Manager – Department	1:1
Employee – Job histories	1:N
Job history -- Employee	1:1

Totally:

ONE TO ONE RELATIONS : 9
 ONE TO MANY RELATIONS : 7

Conclusion:

This document has presented a detailed description of the data i.e. required for the database. This information can be used as a guide for developing the HR database and ensure to meet the requirements of user.