CCOM 4027
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CESR Timesheet Database Design Document

I. Problem Description

Our clients, the Center for Evaluation and Sociomedical Research (from here on out referred to as the CESR) have been using Excel to keep track of their Employees' time sheets. Naturally, this makes it difficult to keep track of employee performance which is critical for their contract based line of work. As such, the CESR requires a solution that digitalizes and organizes their data (data being time sheets), simplifies the entry of time sheets for their contracted personnel, simplifies the creation of performance reports and the complete and total removal of Microsoft Excel from their data management process. The performance reports must also be able to have an "internal" version and an "external" version, the difference being that the "internal" version is for contracted personnel supervisor eyes only and the "external" version must omit sensitive information not suitable for eyes outside of the CESR.

II. Solution requirements

I. A mechanized, maximally error-proof input method must be created. It will be used by personnel to input information about the work they have done on a daily basis. In order to minimize input error, most of the input attributes will be selected through drop-down fields, with the exception of Comment and Hours. The following is the list of input attributes:

a. Date
b. Project
c. Phase
d. Task Code
e. Comment
f. Hours

II. A mechanized method to generate timesheets must be created. Supervisors will input the desired employee, project and time period in order to create a particular timesheet. There are two types of timesheets:

a. Internal use: contains all attributes provided by employee input (see I). This is used internally for bookkeeping and auditing purposes.

b. External use: contains all attributes provided by employee input except Comment. This is provided to clients receiving the center’s services.

III. A mechanized method to generate reports must be created. Supervisors will use them to evaluate a given employee’s performance.

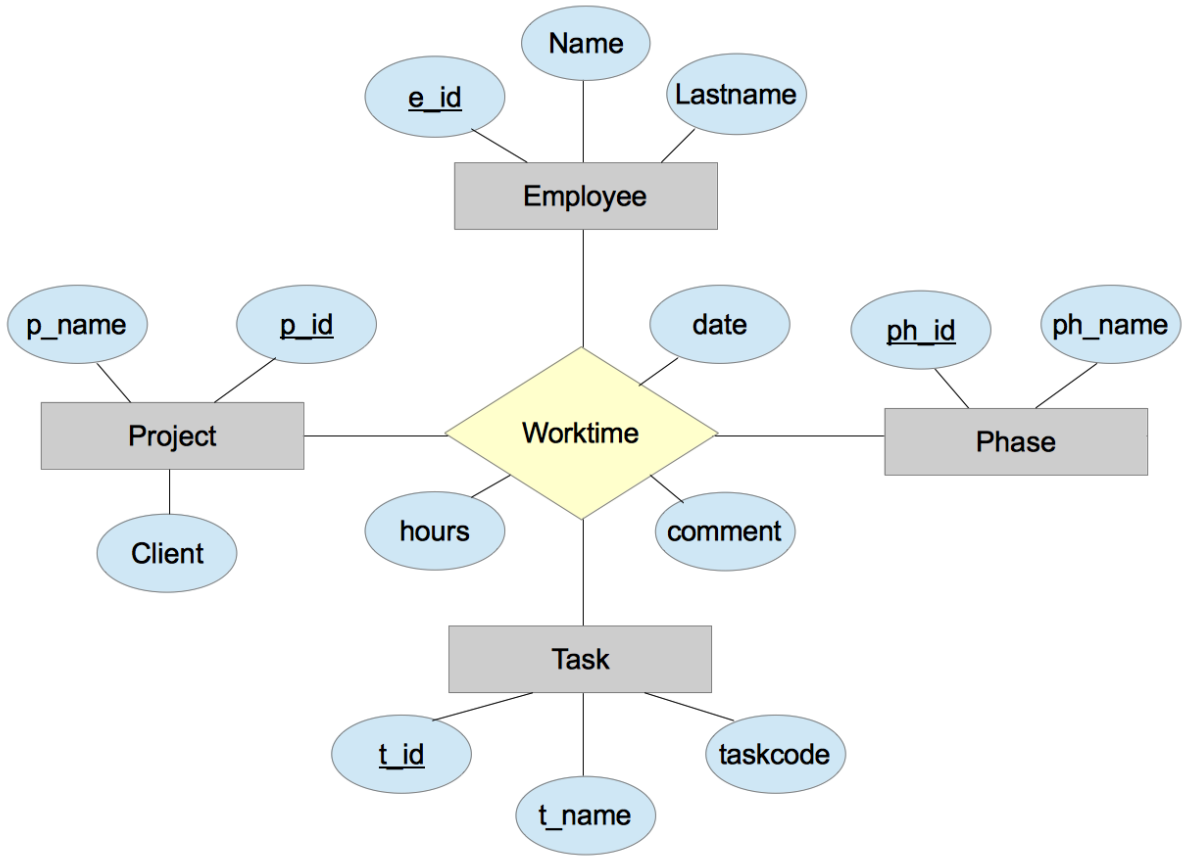
IV. A way to distinguish workdays from holidays, conferred off-days, or personal off-days must be created (not including Saturday and Sunday). There will be three (3) different types of non-workdays:

a. Holidays
b. Conferred off-days (determined by the campus dean for the university)
c. Personal off-days (asked for by the employee; conferred by the supervisor, with a maximum of 12 days per year)

V. A way to distinguish two types of users must be created, namely:

a. Employee: has permission to input daily work information (see I).
b. Supervisor: has permission to create timesheets and reports (see II and III); also determines the personal off-days for a given employee that they supervise (see IV)

III.Proposed Solution



With this database design, employees will be able to register the date and time expended in a project's phase and Task. At the same time the supervisor will be able to extract different types of reports, for example employee report, internal or external project reports. Each table is designed to provide easy keys to access important attributes quickly and precisely so as to facilitate queries over this database. The original format of their timesheets (built with data from

the Worktime table) has been preserved with the hopes of keeping user familiarity with the management of their data.

Worktime
e_id date p_id ph_id t_name comment hours

Employee
e_id Name Lastname

Phase
ph_Id ph_name

Project
p_id Name Lastname

Task
t_id t_name taskcode