

Lab Task – Use case , Class and Package Diagram 26.08.2024

Read the following Case Study carefully and Develop Use Case Diagram ,Class Diagram (by identifying class and Objects) and Package Diagram in Rational Rose.

As the head of the Dept of Information technology at Acme Inc., You are tasked with building a new payroll system to replace the existing system, which is hopelessly out of date. Acme needs a new system to allow employees to record timecard information electronically and automatically generates paychecks based on the number of hours worked and total amount of sales (for Commissioned employees).

The new system will be state of the art and will have a window-based desktop interface to allow employees to enter timecard information ,enter purchase orders, change employee preferences(such as payment method),and create various reports. The system will run on individual employees desktops throughout the entire company .For reasons of security and auditing, employees can only access and edit their own time cards and Purchase Cards.

Some employees work by the hour, and they are paid an hourly rate. They submit timecards that record the date and number of hours worked for a particular charge number. If someone works for more than 8 hours ,Acme pays them 1.5 times their normal rate for those extra hours. Hourly workers are paid every Friday.

Some employees are paid a flat salary. Even though they are paid a flat salary ,they submit time cards that record the date and hours worked. This is so the system can keep track of the hours worked against particular charge numbers. They are paid on the last working day of the month.

Some of the salaried employees also receive a commission based on their sales. They submit purchase orders that reflect the date and amount of the sale. The Commission rate is determined for each employee, and is one of 10% ,15%,25% ,or 35%.

One of the most requested features of the new system is employee reporting. Employees will be able to query the system for number of hours worked ,total of all hours billed to project(ie, charge number),total pay received year-to-date ,remaining vacation time, etc.

Employees can choose their method of payment .They can have their paychecks mailed to the postal address of their choice, or they can request direct deposit and have their paycheck deposited into a bank account for their choosing. The employee may also choose to pick their paychecks up at the office. The payroll administrator maintains employee information The Payroll Administrator is responsible for adding new employees, deleting employees and changing all employee information such as name,

address, and payment classification (hourly, salaried ,commissioned) as well as running administrative reports.