//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

// HourlyEmployee.java

//

// For secure coding laboratory exercise which addresses

// potential vulnerabilities in extensibility through inheritance

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public class HourlyEmployee extends EmployeePayInfo

{

private double hoursWorked; ✓

//-----------------------------------------------------------------

// Constructor: Establishes pay information for an hourly employee

// Primarily uses the EmployeePayInfo parent data/constructor

//-----------------------------------------------------------------

public HourlyEmployee (String firstName, String lastName, String officeAddress,

String officePhone, String socialSecurityNumber, double payRate) V4 ✓ P

{ super (firstName V5, lastName V5, officeAddress V5, officePhone V5, socialSecurityNumber V5,

payrate V5);

hoursWorked = 0.0;

}

//-----------------------------------------------------------------

// Adds hours worked for a given period of time to an hourly

// employees data

//-----------------------------------------------------------------

public void addHoursWorked (double moreHours) V4 ✓ P

{ hoursWorked += moreHours V5; }

//-----------------------------------------------------------------

// Calculates and returns pay for hourly employee and resets

// hours worked to zero.

//-----------------------------------------------------------------

public double pay() V4

{ double payment = payRate \* hoursWorked;

hoursWorked = 0.0;

return payment;

}

//-----------------------------------------------------------------

// Returns information about this hourly employee as a string.

//-----------------------------------------------------------------

public String toString() V4

{ String result = super.toString();

result += "\nCurrent hours: " + hoursWorked;

return result;

}

}