UML PROJECT ON

JUIDICIARY INFORMATION SYSTEM

*Prepared by:

- Shaikh Mubina (090010107017)
- Patel Prithvi (090010107007)

*Department: - Computer Engineering

CONTENTS

INTRODUCTION

a) Purpose: - To help handle court cases and make the past court cases easily accessible to the lawyers and judges.

It is useful in court for solve following query:

- It handles the currently pending court cases.
- It handles the cases that have been resolved over any given period.
- It shows the cases that are coming up for hearing on a particular date.
- It shows the status of any particular case which are indentified by **CIN** (*Case Identification Number*).

b) Scope: - In court for handle information of cases.
It uses in different level of court cases.

c) Overview: - **JIS** is software which is helpful to handle court cases. It also makes the past court cases easily accessible to the lawyers and judges. It gives **CIN** to each case.

Introduction to UML & Rational Rose

a) UML

- A standardized, graphical "modeling language" for communicating software blueprints (conceptual design, architectural and detailed design)
- Allows implementation-independent specification of:
  - user/system interactions (required behaviors)
  - partitioning of responsibility (OO)
  - integration with larger or existing systems
  - data flow and dependency
  - operation orderings (algorithms)
  - concurrent operations

UML is not a "process". (That is, it doesn't tell you how to do things, only what you should do.)

b) Rational Rose

- An expensive CASE (Computer-Aided Software Engineering) tool for object-oriented modeling.
- Based on UML (more or less).
- Provides semantics (a 'compiler') for UML.

- Has a reasonably intuitive GUI similar to standard drawing programs, like Illustrator. Is available for Windows and other platforms.
- Makes creating and maintaining your UML diagrams easier (or at least more consistent).
- Has many features, including generation of Java (and other) code from your diagrams.

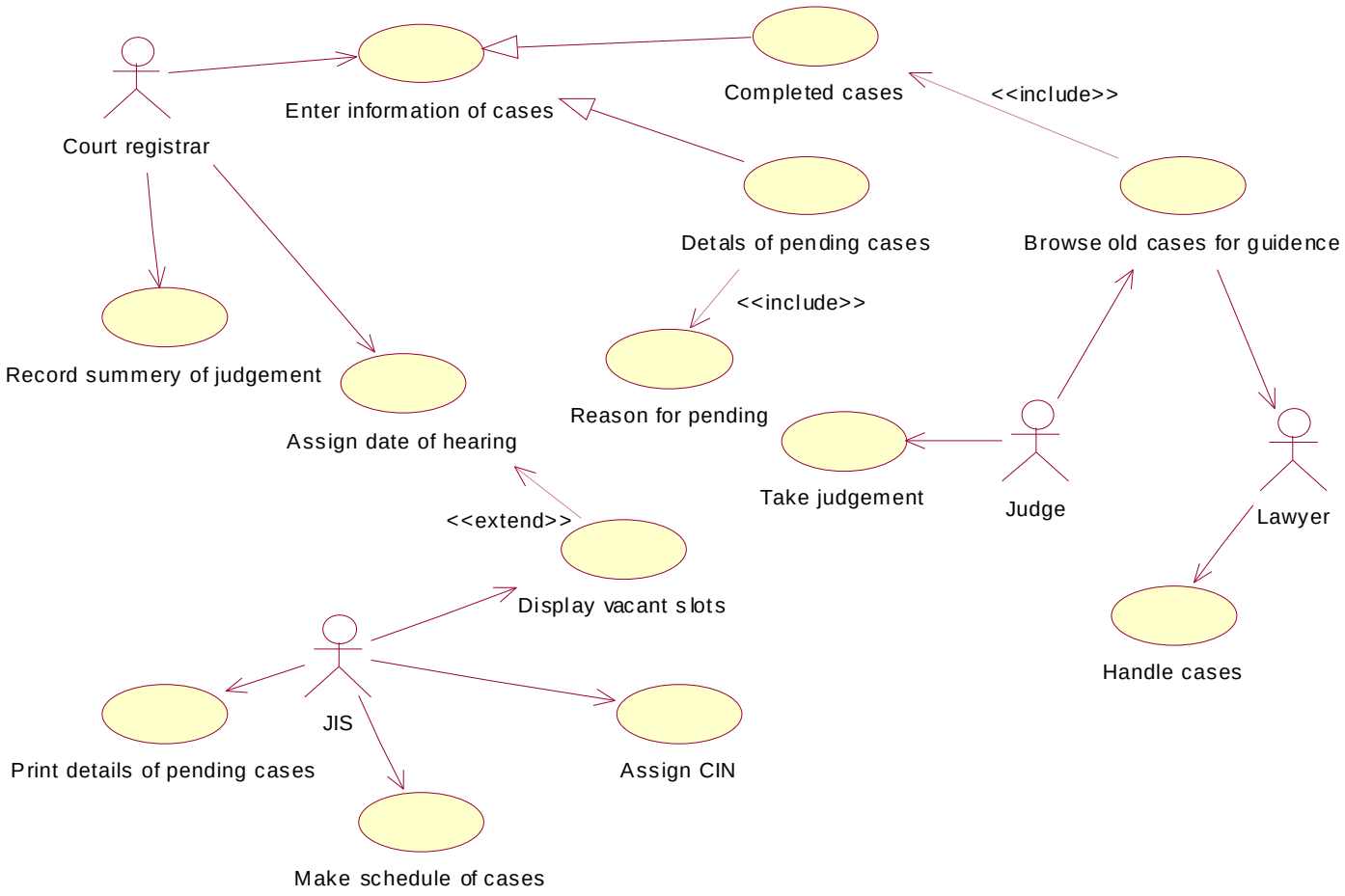
INTERACTION MODEL

1) Use case Diagram

2) Sequence Diagram

3) Activity Diagram

Use case diagram

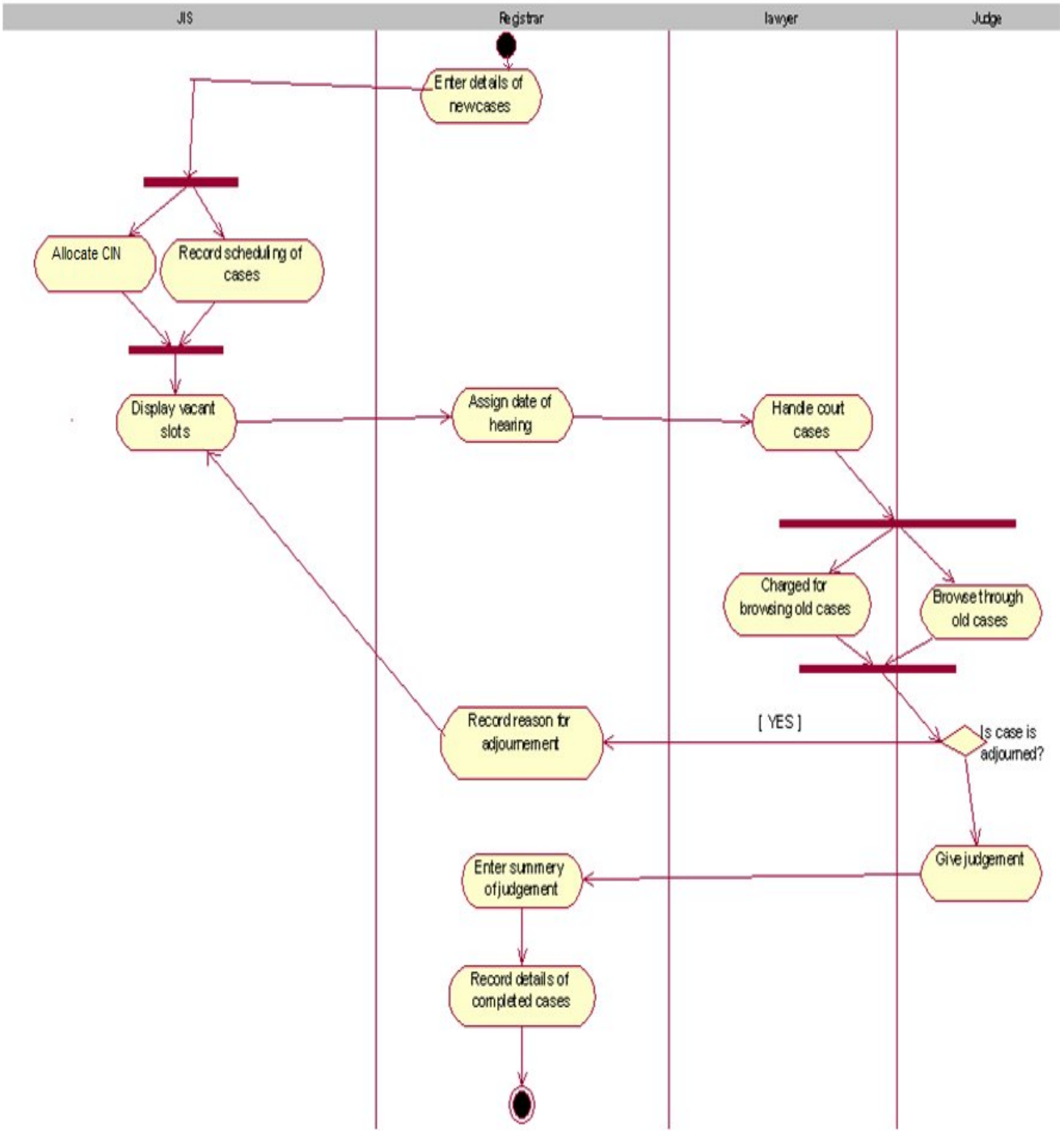


In this Use case diagram, there are four actors:-

1. Court registrar 2. JIS
3. Lawyer 4. Judge

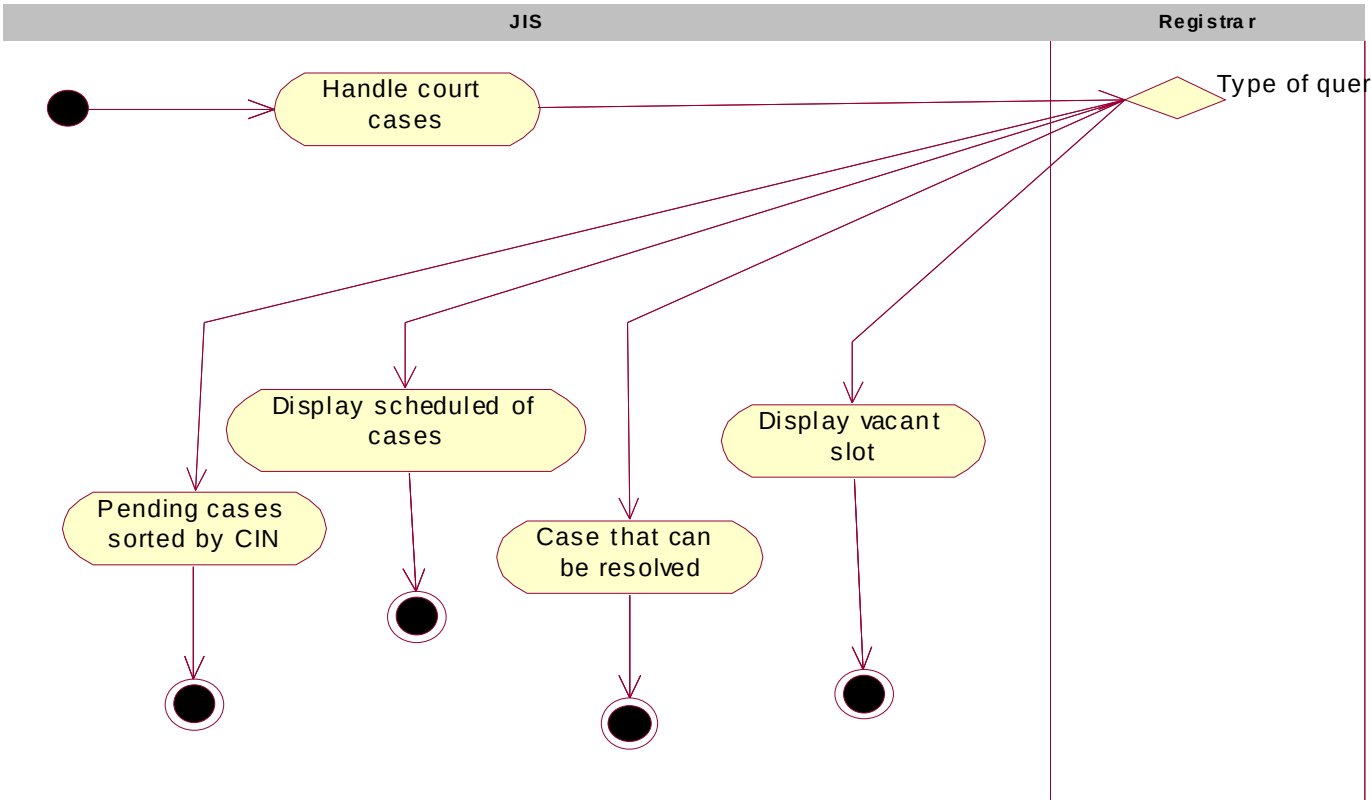
- Court registrar enters information of cases, which is generalized into details of pending cases and case history.
- If case is pending because of some reason, a new hearing date is assigned by court registrar.
- Court registrar assigns date of hearing according to the vacant slots displayed by JIS. For that we use extend relationship between these two use cases.
- Lawyers and judges browse through old case, which includes case history for guidance.

Activity diagram



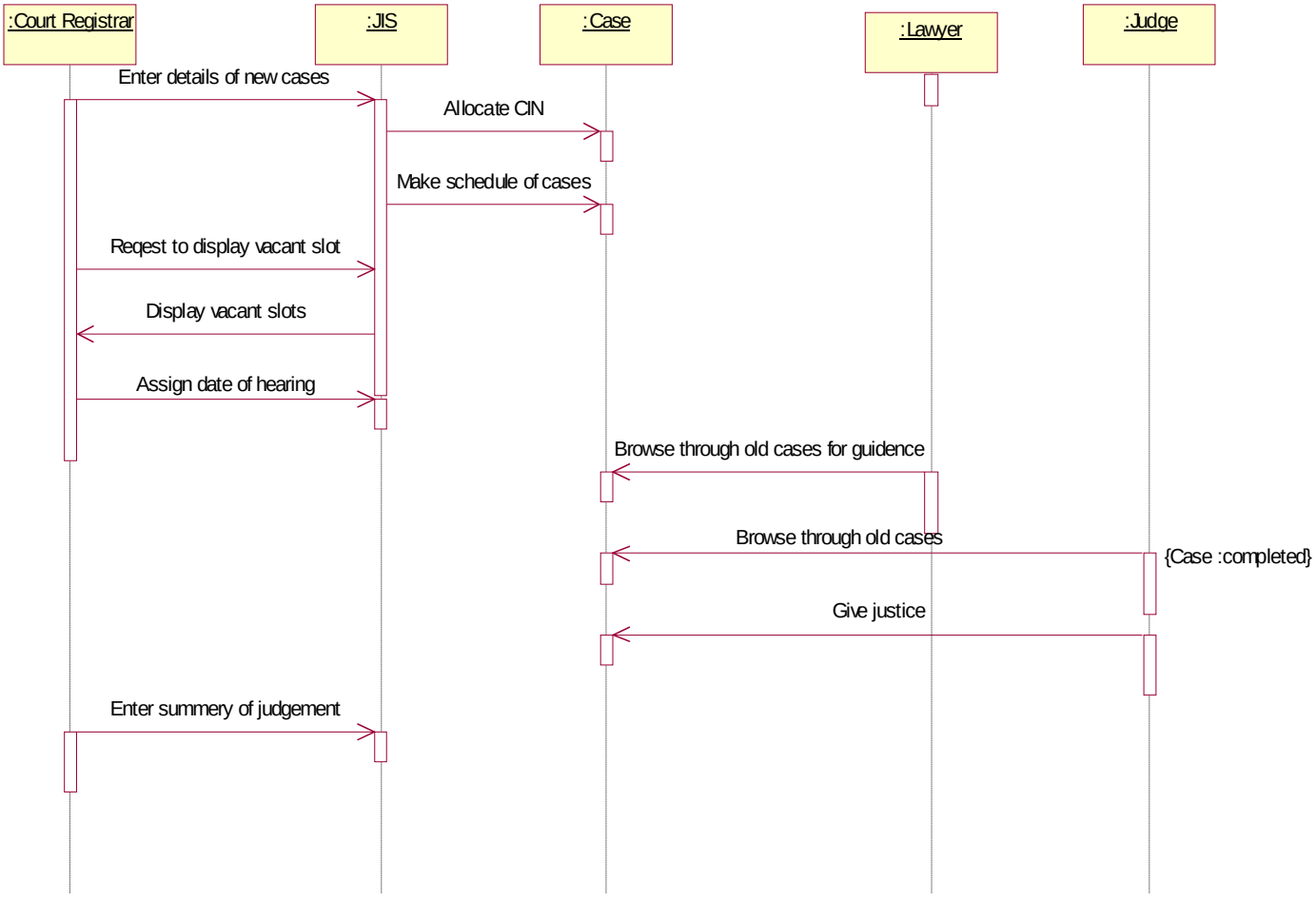
Activity diagram shows the *data flow* as well as *control flows.*

- Registrar enters the details of case into computer, and then JIS allocate CIN for that case and make scheduling of cases.
- JIS displays the vacant slot and according to that registrar assigns date of hearing for particular case.
- Then lawyer handles the cases.
- If case is adjourned for some reason, the reason for pending is recorded by registrar and he assigns new hearing date.
- If case is completed, then summery of judgment and details of completed case are recorded by registrar.



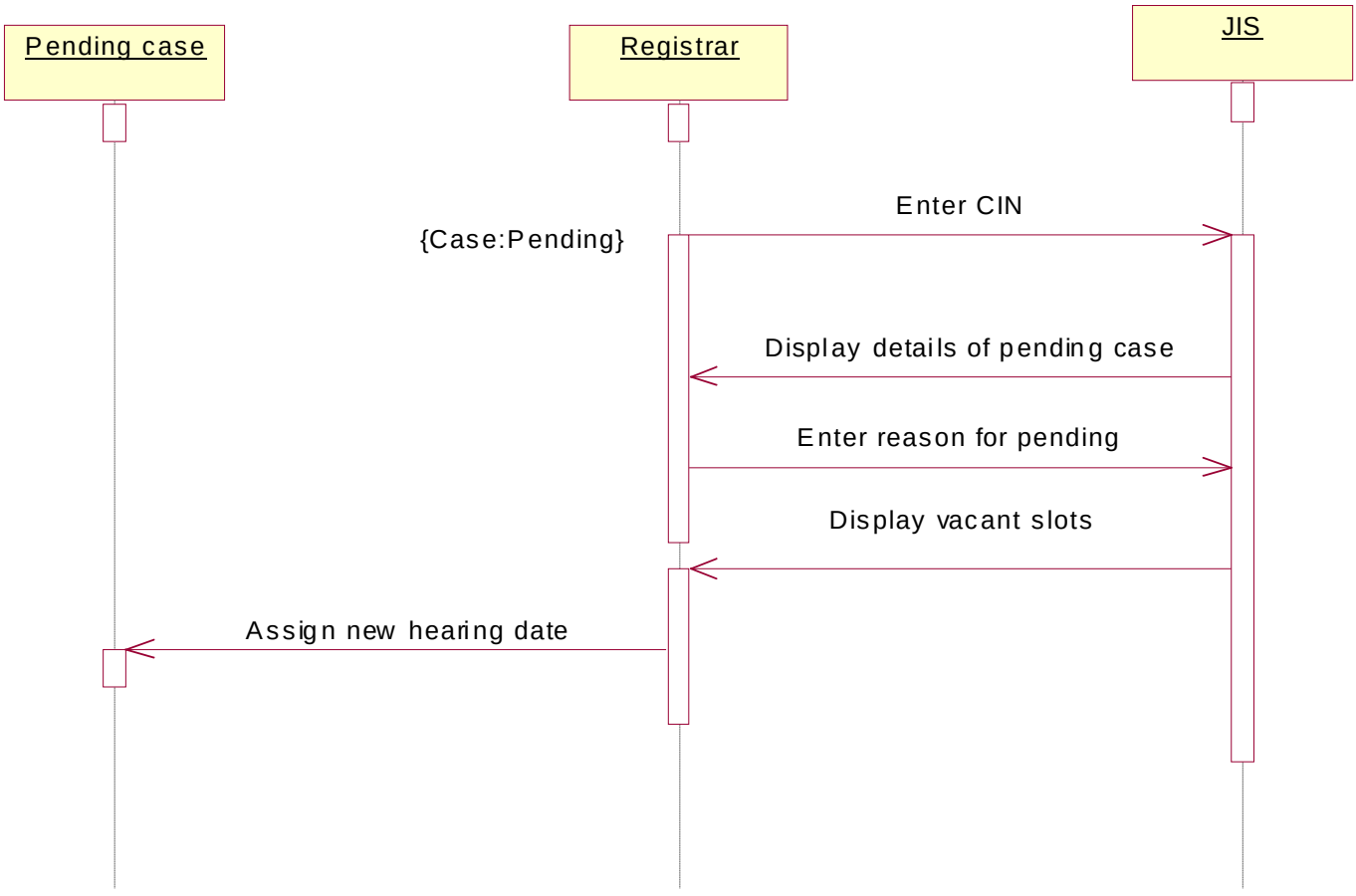
- This Activity diagram is for function of JIS.
- The court registrar enters the type of query according to situation.
- JIS displays the currently pending cases sorted by CIN, the vacant slots, scheduling of cases that are coming up and cases that have been resolved over any given period and status of any case identified by CIN.

Sequence Diagrams



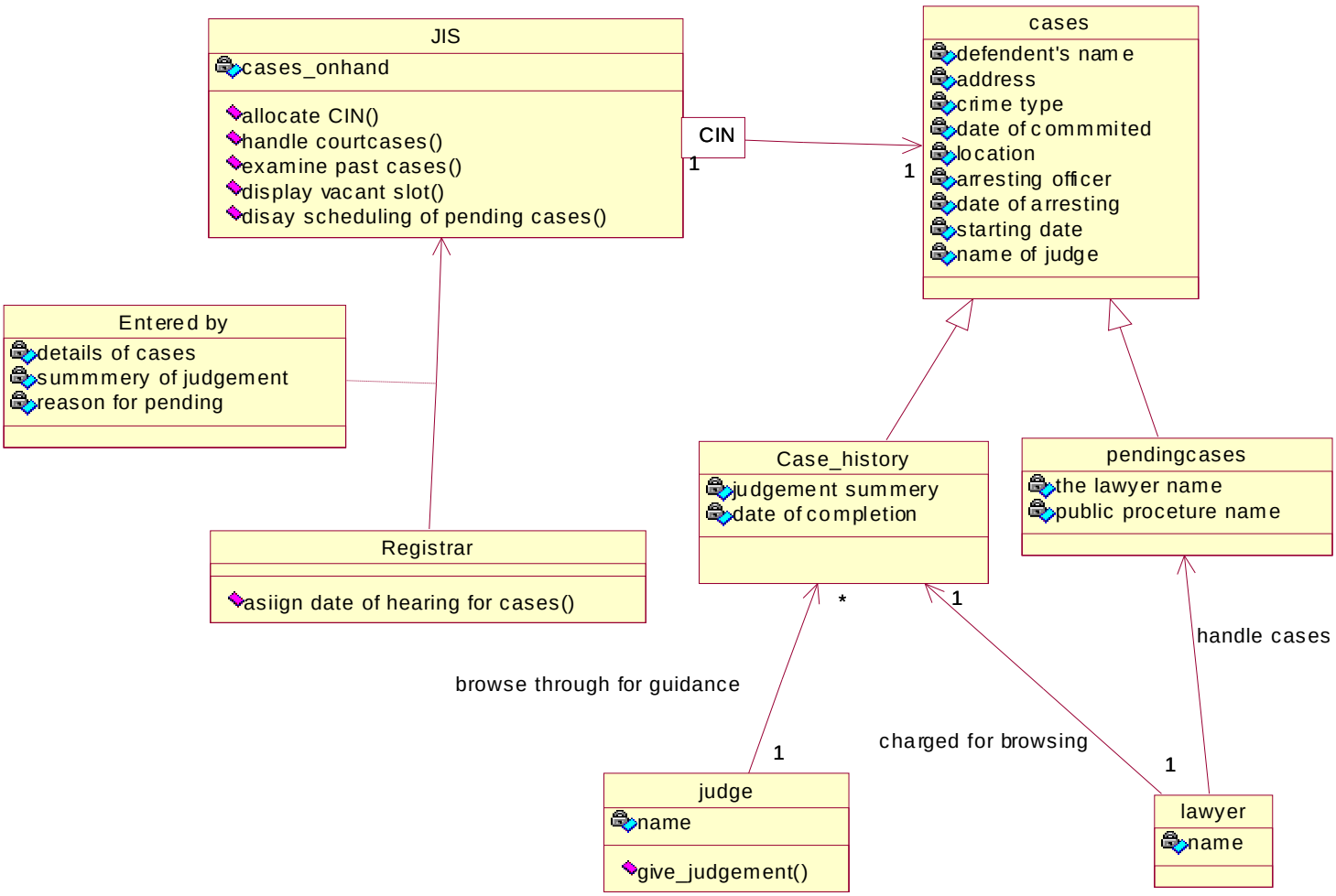
- Sequence diagram shows the participant in an interaction and the sequence of messages among them.
- In this diagram, there is sequence of messages b/w registrar, JIS, lawyer, judge and case, which are objects in real world.
- After completion of case, the judge gives judgment and then summery of judgment is recorded by court registrar.

Sequence Diagram for pending cases



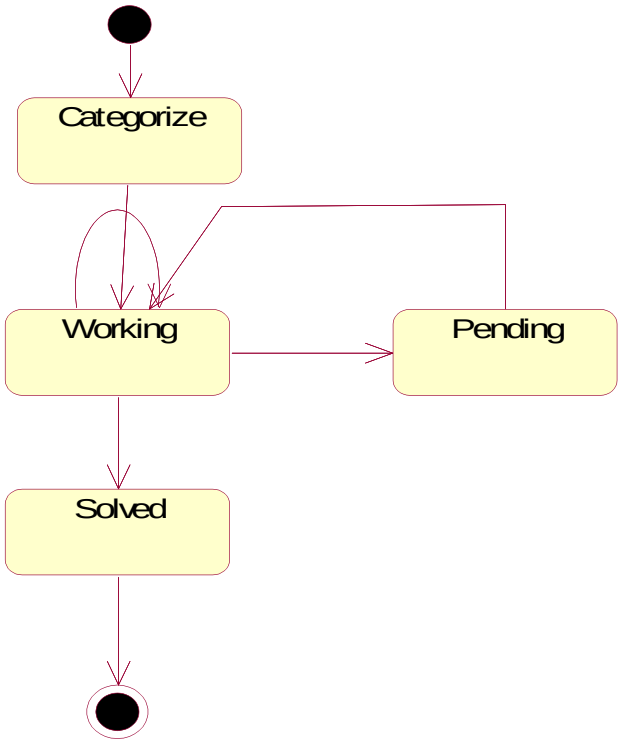
- This is a sequence diagram for particular pending cases.
- If case is pending due to some reason then registrar record reason for pending.
- Then, JIS displays the vacant slot, according to that registrar assign new hearing date for that case.

Class Diagram

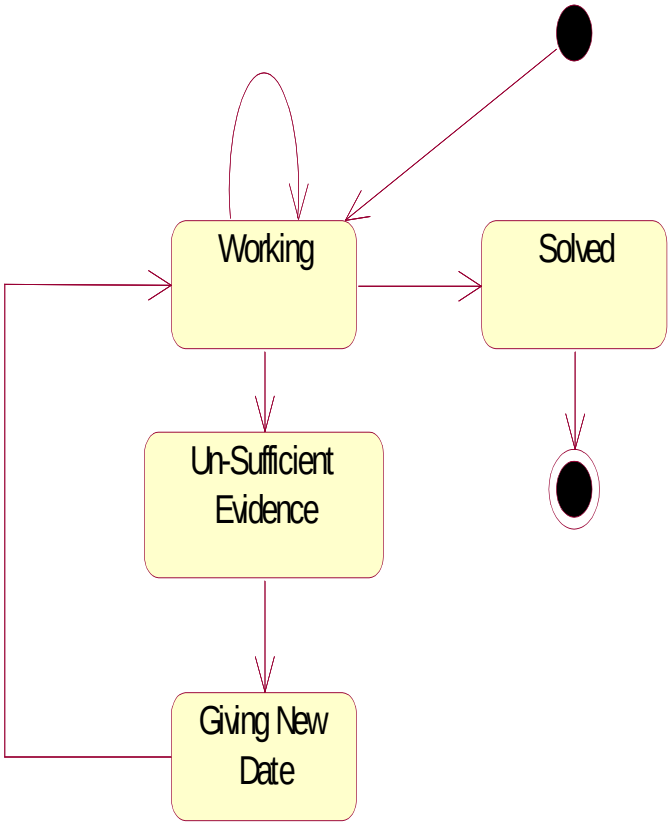


- Class diagram shows the static structure of real world object – their identity, attributes, operations and method of implementation.
- JIS describes cases according to CIN.
- Registrar enters details of cases in JIS, which is shown by association having multiplicity of one to one.
- Between JIS and registrar, there is one association class. *'Display'* having 1 to 1 multiplicity.
- Cases are generalized into two subclasses: - 1.pending case and 2. Case history.
- Class case defines common attributes of *pending case* and *case history.*
- Lawyers and judge browse through old cases for guidance using case history, but lawyers are charged for browse each case.

STATE DIAGRAM FOR CASE



STATE DIAGRAM FOR HEARING



PROCESS OVERVIEW

System conception deals with the genesis of the applications. The purpose of system conception is to defer details and understand the big picture – what need does the proposed system meet, can it be developed at a reasonable cost, and will the demand for the result justify the cost of building it?

Our system concept answers the following question.

- **Who is the application for?**

  The attorney general's office provides JIS. This application contains all data about court cases in its database. So registrar can access the details. Lawyer and judge can use these details for the guidance. Lawyers have to pay charged for that.

- **What problems will it solve?**

  This system displays vacant slot to registrar for assigns new hearing date. So on any working day, during which the case can be scheduled.

- **Where will it be used?**

  This application will use in court at different level like district level, state level, etc.

- **When is it needed?**

  It is use when registrar wants to assign new hearing date for cases. It also uses to display

scheduling of cases those are coming up. This data will use when lawyers and judges require guidance.

- **Why is it needed?**

  To help handle court cases and make the past court cases easily accessible to the lawyers and judges. This application is needed to record information of new cases. Also contain details of pending cases and resolved cases.

- **How will it work?**

  The all details of each case are recorded in its database by court registrar like information of new case, reason for pending case, summery of judgment and details of completed case.

  When registrar wants to give new hearing date, our system shows available vacant slots. When lawyers and judges want guidance it is easily accessible.

Conclusion and future work

This JIS software is used at different levels of court system. Using this software registrar solve different problems which occur while proceeding of cases. Using this software court cases easily access. It will result in early completion of cases.