**Ex no:**

# RECRUITMENT SYSTEM

**Date:**

**AIM:**

To create an automated system to perform the Recruitment System Process.

## (I)PROBLEM STATEMENT:

The recruitment system allows the job seekers to view the job opportunity through Advertisement and helps to apply for the job. The organization shortlist the applicants for the interview. The shortlisted applicants undergo through a process of Test and Interview. The HR department selects the Applicant based on the performance in the Test and Interview. Finally the recruited applicants are informed. This system makes the task of the job seeker easier rather than waiting in queue for enrollment. This also reduces the time consumption for both for the job seeker and organization.

## (II)SOFTWARE REQUIREMENT SPECIFICATION:

### 1.0 INTRODUCTION

**Recruitment System** is an interface between the Applicant and the Organization responsible for the Recruitment. It aims at improving the efficiency in the Recruitment process and reduces the complexities involved in it to the maximum possible extent.

### 1.1 PURPOSE

If the entire process of 'Recruitment' is done in a manual manner then it would takes several days for the recruitment. Considering the fact that the number of applicants for recruitment is increasing every year, an Automated System becomes essential to meet the demand. So this system uses several programming and database techniques to elucidate the work involved in this process.

## 1.2 SCOPE

- The System provides an online interface to the user where they can fill in their personal details and apply for the job.

- The Organization (HR-Department) concerned with the recruitment process can make use of this system to reduce their workload and process the application in a speedy manner.

- Provide a communication platform between the Applicant and the Organization.

## 1.3 DEFINITIONS, ACRONYMS AND THE ABBREVIATIONS

- **Organization**

  Refers to the super user who is the Central Authority with the privilege to manage the entire system. It can be any higher official in the HR department.

- **Applicant**

  One who wishes to apply for the job.

- **RS**

  Refers to this Recruitment System.

- **HTML**

  Markup Language used for creating web pages.

- **J2EE**

  Java 2 Enterprise Edition is a programming platform java platform for developing and running distributed java applications.

- **HTTP**

  Hyper Text Transfer Protocol.

- **TCP/IP**

  Transmission Control Protocol/Internet Protocol is the communication protocol used to connect hosts on the Internet.

## 1.4 REFERENCES

IEEE Software Requirement Specification format.

**1.5 TECHNOLOGIES TO BE USED**

- HTML
- JSP
- Javascript
- Java

**1.6 TOOLS TO BE USED**

- Eclipse IDE (Integrated Development Environment)

- Rational Rose tool (for developing UML Patterns)

**1.7 OVERVIEW**

SRS includes two sections overall description and specific requirements

**Overall Description** will describe major role of the system components and inter-connections.

**Specific Requirements** will describe roles & functions of the actors.

**2.0 OVERALL DESCRIPTION**

**2.1 PRODUCT PERSPECTIVE**

The RS acts as an interface between the "Applicant and the 'Organization'. This system tries to make the interface as simple as possible and at the same time not risking the security of data stored in. This minimizes the time duration for recruitment process.

**2.2 SOFTWARE INTERFACE**

- **Front End Client** –The Applicants and Organization online interface is built using JSP and HTML. The Administrators' local interface is built using Java.
- **Web Server** - Glassfish application server (SQL Corporation).
- **Back End** - SQL database.

**2.3 HARDWARE INTERFACE**

The server is directly connected to the client systems. The client systems have access to the database in the server.

## 2.4 SYSTEM FUNCTIONS

- The applicant views the jobs through Advertisement.

- Applicants apply for the job.

- Test and Interview are conducted.

- Recruited Applicants are informed.

- HR Manager can generate reports from the information and he/she is the only authorized personnel to add the eligible application information to the database.

## 2.5 USER CHARACTERISTICS

- **Applicant**

  These are the persons who desire to apply for the job.

- **Organization**

  These are the person with certain privileges to announce recruitment depending upon the organization need. He/ She may contain a group of persons under him/her to publish advertisement and give suggestion whether or not to approve the recruitment.

- **HR**

  He/ She is the person who upon receiving intimation from the RS, perform a personal verification of the applicants and see if he/she has eligibility for the advertised job through a process of Test and Interview.

## 2.6 CONSTRAINTS

- The Applicants require a computer to submit their information.

## 2.7 ASSUMPTIONS AND DEPENDENCIES

- The Applicants and HR must have basic knowledge of computers and English Language.

### ( III )USECASE DIAGRAM:

The Recruitment system use cases are:

1. Advertisement
2. Apply for job
3. Test
4. Interview
5. Recruit Applicants

## ACTORS INVOLVED:

Actors are as follows:

1. Applicant
2. Organization
3. HR

## ACTORS DOCUMENTATION:

- **Applicant**

  Applicant is an actor who applies for the job vacancy. If he/she gets selected then HR department sends the Interview call letter.

- **HR**

  HR is an actor who informs about the vacancy to their Organization. HR recruits the applicants based on the required skill for the vacant position and shortlist them. HR is also responsible for Interview Scheduling.

- **Organization**

  Organization is an actor who announces the Advertisement for vacancy.

## USE-CASE NAME: ADVERTISEMENT

**Description:** This Use Case is initiated by Organization. Notifies about the required job vacancies

**Flow of Events:**

1. HR informs about vacancy to Organization.

2. Organization announces the Advertisement.

**Pre-Condition**: Vacancy must exist.

**Post-Condition:** Details about the vacancy are informed.

## USE CASE: APPLY FOR JOB

**Description:** This Use Case is initiated by Applicants. Online forms are filled by the Applicants and submitted to the organization.

**Flow of Events:** 1. HR processes the filled forms.

2. HR selects the list of eligible Applicants.

**Pre-Condition:** Online form must exist.

**Post-Condition:** Forms filled are stored in an Information System for processing. The filled forms are sent to the HR. The HR produces the list of eligible Applicants.

## USE CASE: SELECT APPLICANTS FOR INTERVIEW

**Description** This Use Case is initiated by HR. The lists of selected Applicants are Informed .The Test and Interviews are conducted by the HR of the region that has the vacancy.

**Flow of Events:** 1. HR schedules the interview process.

2. HR conducts test and interview for the applicant via online system.

3. Who clear the interview process are selected.

**Pre-Condition:** Applicants must meet eligibility criteria.

**Post-Condition:** Applicants clears interview process OR doesn't clear interview process.

## USE CASE: TEST.

**Description:** This Use Case is initiated by the HR. A test will be conducted by the HR

**Flow of Events** 1. The applicants undergo the Test process.

2. He/ She clear or not clear the Test.

**Pre-Condition:** Applicant is selected for the Test.

**Post-Condition:** Applicant clear or not clear the Test.

## USE CASE: INTERVIEW

**Description:** This Use Case is initiated by the HR. An Interview will be conducted by the HR

**Flow of Events** 1. The applicants undergo the Interview process.

2. He/ She clear or not clear the Interview.

**Pre-Condition:** Applicant is selected for the Interview.

**Post-Condition:** Applicant clear or not clear the Interview.

## USE CASE: RECRUITED APPLICANTS

**Description:** This Use Case is initiated by the HR. The selected applicants are recruited by HR.

**Flow of Events**  1. The applicants clear the Test.

2. The applicants clear the Interview.

**Pre-Condition:**  Applicant is selected for the Test and Interview.

**Post-Condition:** Applicant clears Test and Interview.
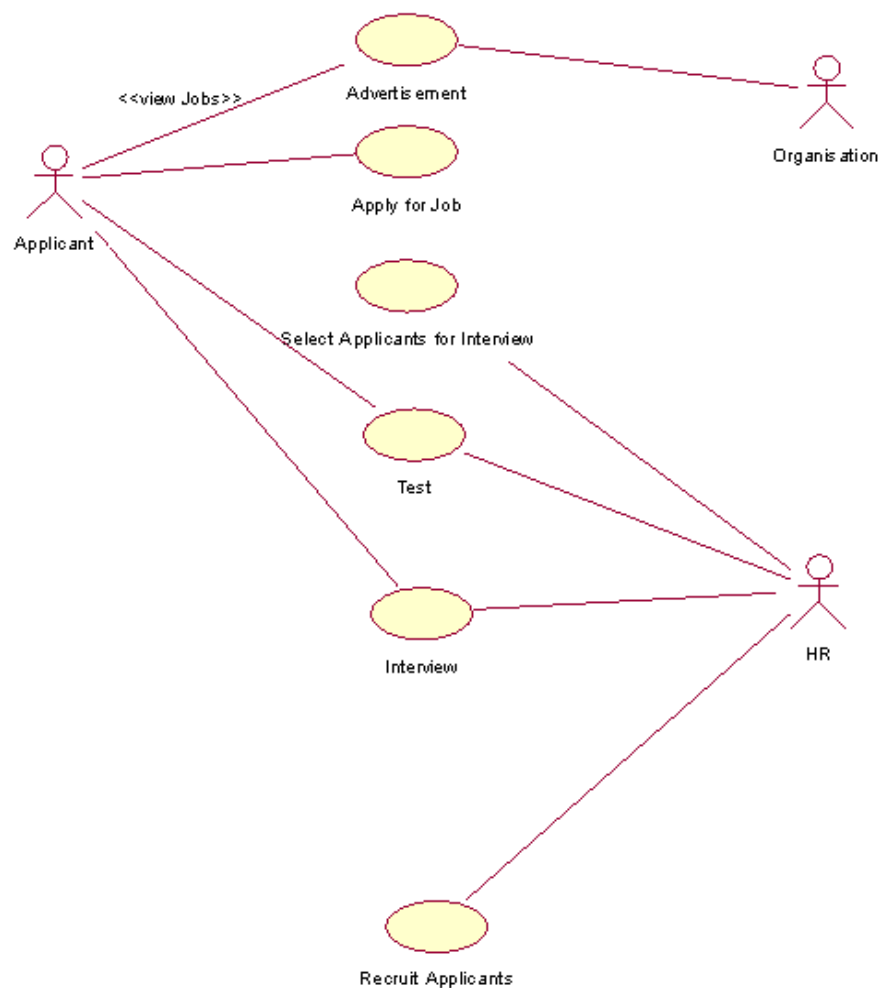
**Fig 3. USE CASE DIAGRAM FOR RECRUITMENT SYSTEM**

## (IV) ACTIVITY DIAGRAM:

The activity diagram represents the series of activities that are ocurring between the objects.Following is activity diagram which represents the recruitment process .
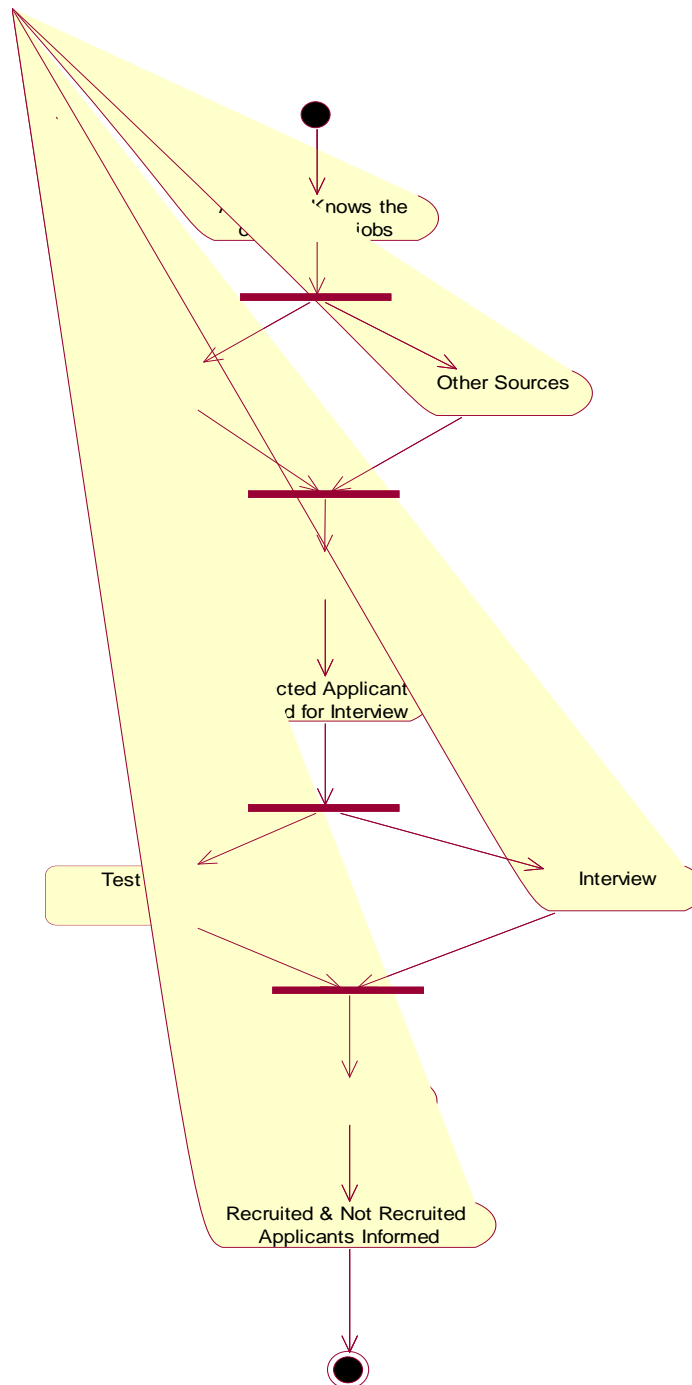
**Fig.4 ACTIVITY DIAGRAM FOR RECRUITMENT SYSTEM**

### (V) CLASS DIAGRAM:

The UML class diagram illustrates class interfaces and their actions. They are used for static object modeling. The problem domain describes the structure and the relationships among objects.

The Recruitment system class diagram consists of five classes

1. Applicant class
2. Organization class
3. HR Department class
4. Advertisement class
5. Recruitment class

### 1) APPLICANT CLASS:

It consists of eight attributes and two operations. The attributes are Appl-id, Appl-name, Appl-DOB, Appl-Gender, Appl-Qualification, Appl-phone, Appl-emailid, Appl-addr.The operation of this class are view jobs ( ) and Apply ( ).

### 2) ORGANIZATION CLASS

The attributes of this class are Org-name, Org-Ph-No, and Org-Addr. The operation of this class are HR-Dept( ), Mkt-Dept( ) and Account-Dept( ).

### 3) HR DEPARTMENT CLASS

The attributes of this class are Emp-id, Emp-name, Emp-DOB, Emp-Gender, Emp-Phone, Emp-emailid, Emp-addr. The operation are Planning( ), Policies( ),Strategies( )

### 4) ADVERTISEMENT CLASS

The attributes of this class are Adv-No, Adv-Name and Adv-description. The operation is display( ).

### 5) RECRUITMENT CLASS

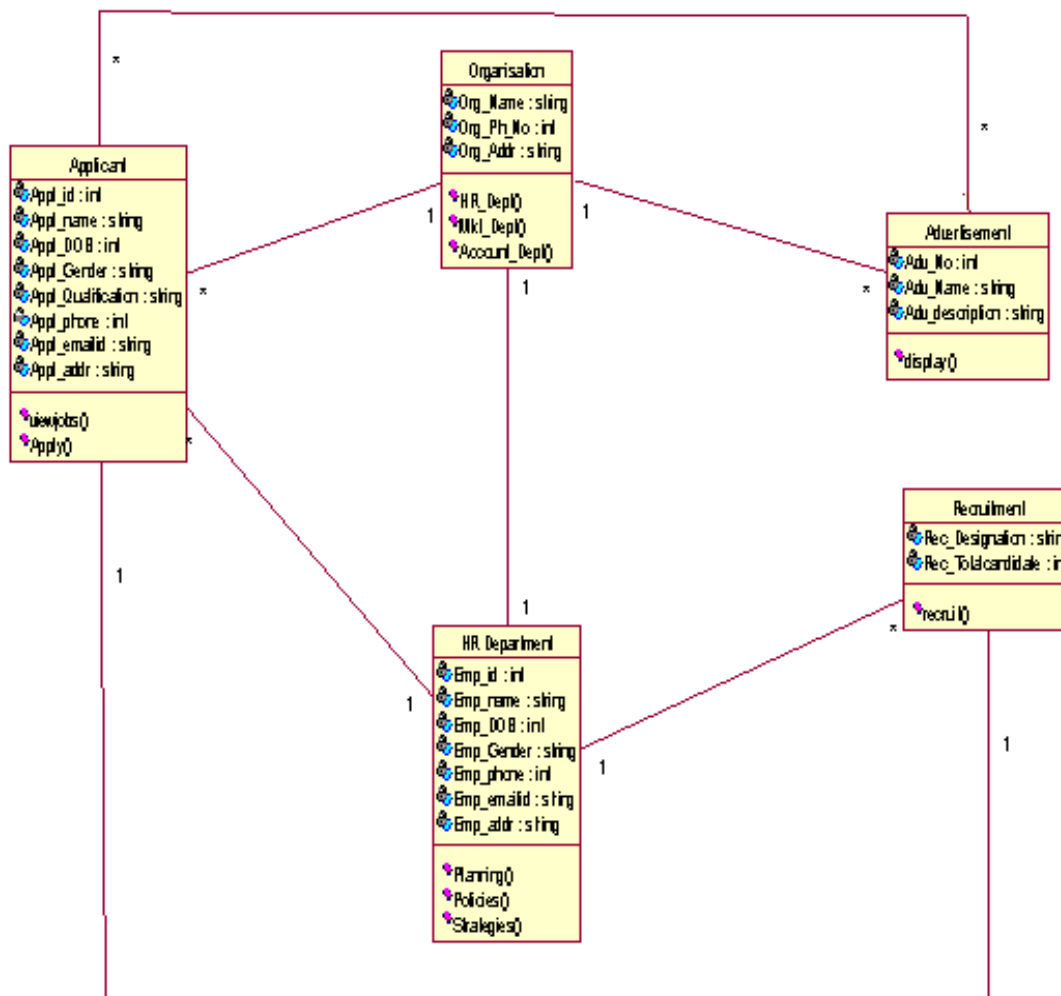The attributes are Rec-Designation and Rec-Totalcandiate. The operation is recruit( ).

**Fig.5 .CLASS DIAGRAM FOR RECRUITMENT SYSTEM**

## (VI) INTERACTION DIAGRAM:

▪ A sequence diagram illustrates a kind of format in which each object interacts via message. It is generalize between two or more specialized diagram.
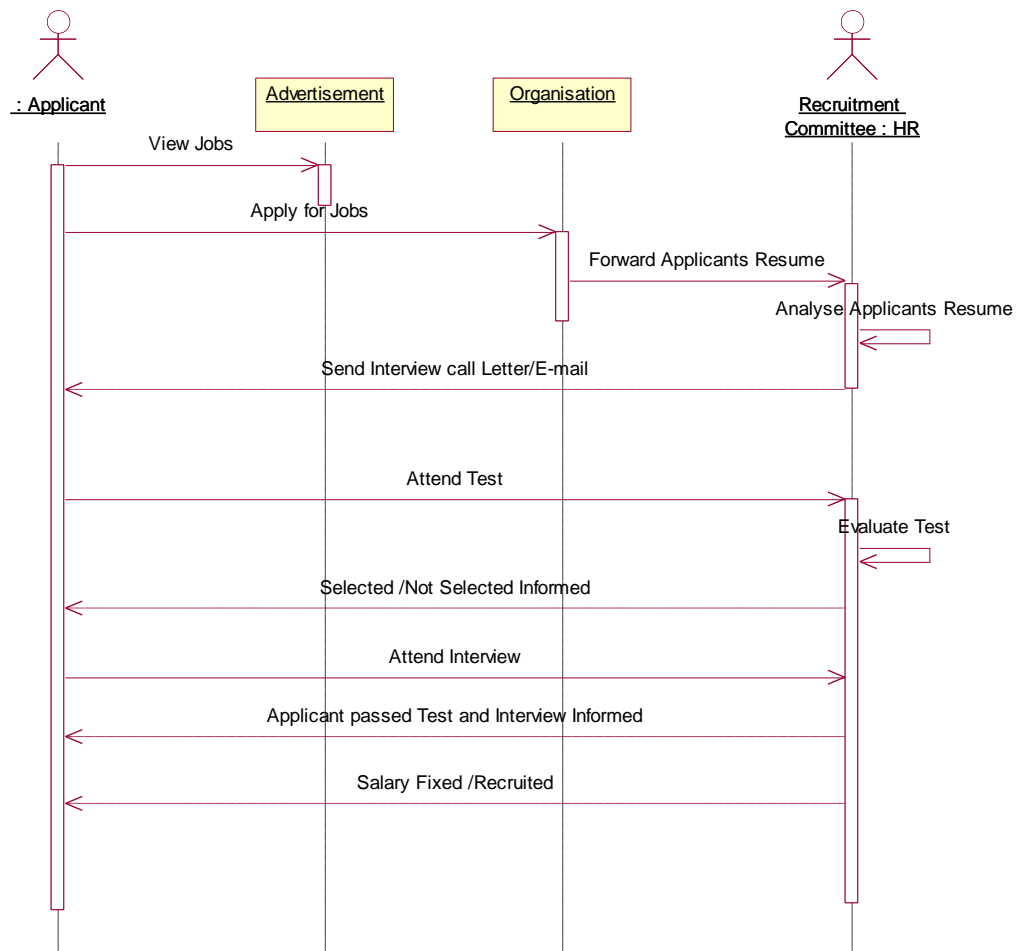
**Fig 6.1 SEQUENCE DIAGRAM FOR RECRUITMENT SYSTEM**

▪ Communication diagram illustrate that object interact on a graph or network format. In collaboration diagram the object can be placed in anywhere on the diagram. The collaboration comes from sequence diagram.
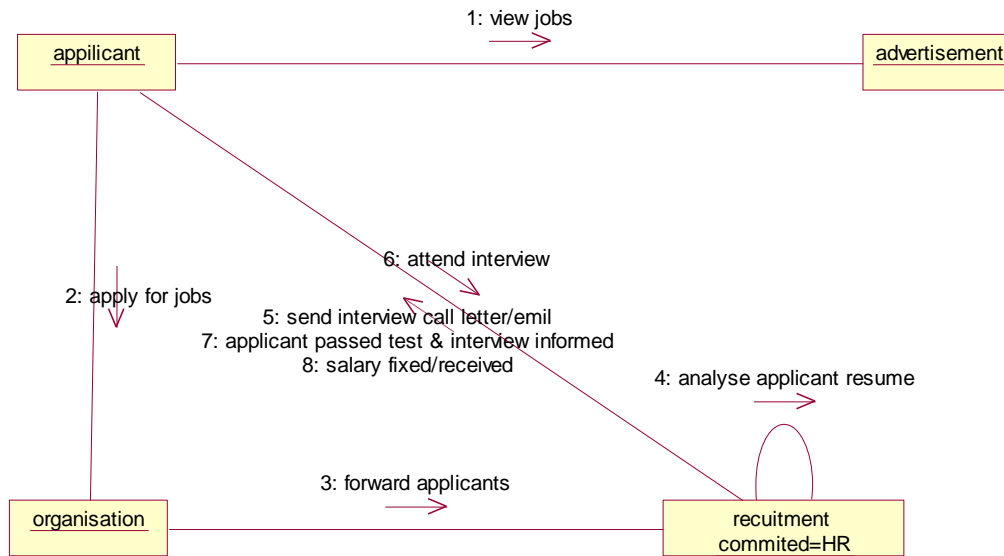
**Fig 6.2 COLLOBORATION DIAGRAM FOR RECRUITMENT SYSTEM**

## (VII) STATE CHART DIAGRAM:

▪ Every object undergoes through some state and on receiving some event the state gets changed. This transition of the state can be represented by the state transition diagram.



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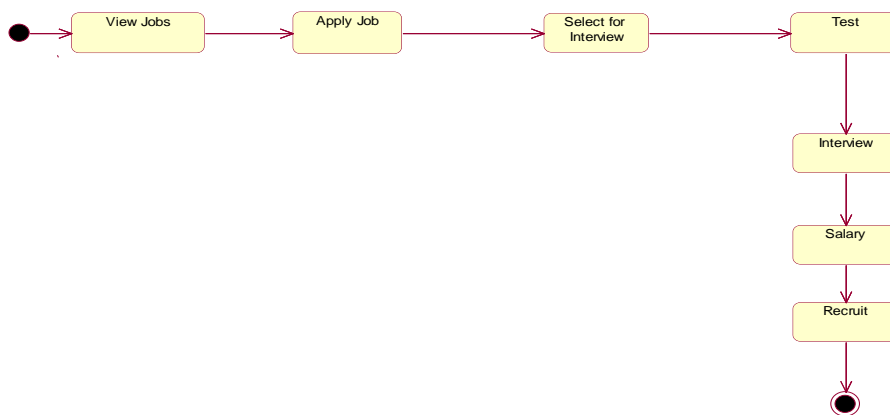
**Fig .7 STATE CHART DIAGRAM FOR RECRUITMENT SYSTEM**

## (VIII) DEPLOYMENT DIAGRAM AND COMPONENT DIAGRAM

Deployment diagrams are used to visualize the topology of the physical components of a system where the software components are deployed.
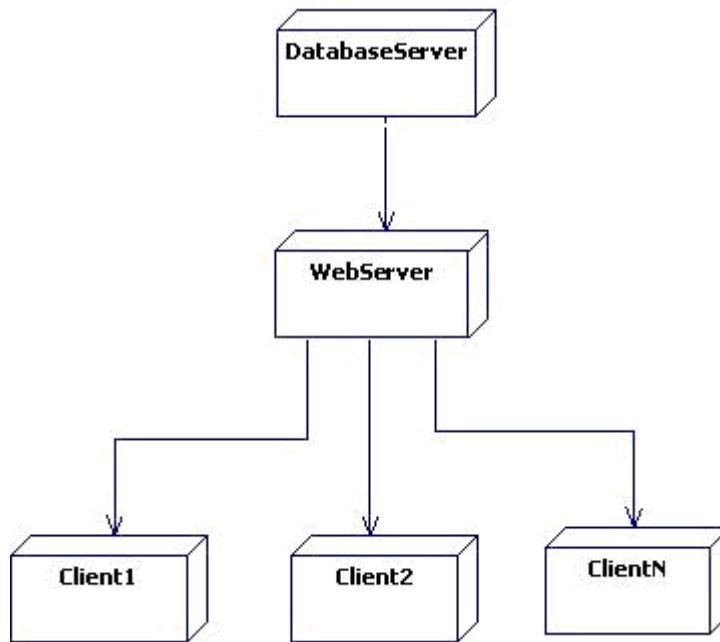


**Fig.8.1.DEPLOYMENT DIAGRAM**

Component diagrams are used to visualize the organization and relationships among components in a system.
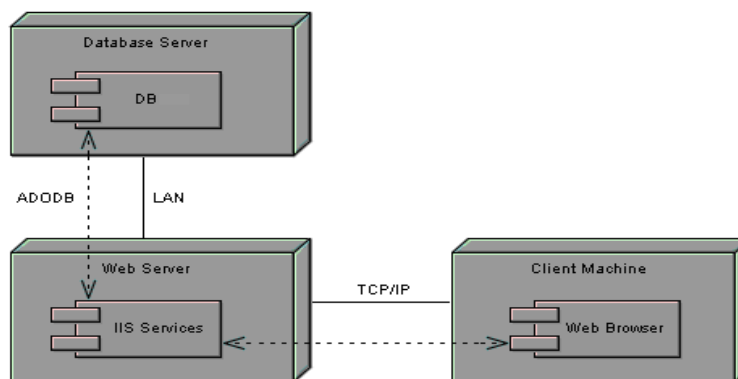


**Fig.8.2.COMPONENT DIAGRAM**

## (IX) IMPLEMENTATION OF DOMAIN OBJECTS LAYER AND TECHNICAL SERVICE LAYER

**//Source file: recruitment.java**

```
public class recruitment
{
    private string rec_designation;
    private int rec_totalcandidate;

    /**
    @roseuid 515D0EFE0290
     */
    public recruitment()
    {

    }

    /**
    @roseuid 515D0DC4031C
     */
    public void recruit()
    {

    }
}
```

**//Source file: HRDepartment.java**

```
public class HRDepartment
{
    private int Emp_id;
    private int emp_DOB;
    private string emp_name;
    private string emp_addr;
    public organisation theOrganisation;

    /**
    @roseuid 515D0EFE02BF
     */
    public HRDepartment()
    {

    }

    /**
    @roseuid 515D0D8F0261
```

```
    */
  public void planning()
  {

  }

  /**
  @roseuid 515D0D940242
  */
  public void policies()
  {

  }

  /**
  @roseuid 515D0D9702DE
  */
  public void strategies()
  {

  }
}
```

**(X) IMPLEMENTATION OF USER INTERFACE LAYER**



Fig.11.Registration Form

## RESULT:

Thus the mini project for recruitment system has been successfully executed and codes are generated.