UNIVERSITY PLACEMENT AND INTERNSHIP PORTAL

Punith R •15CS01036
Snigdha.K •15CS01046

CONTENTS

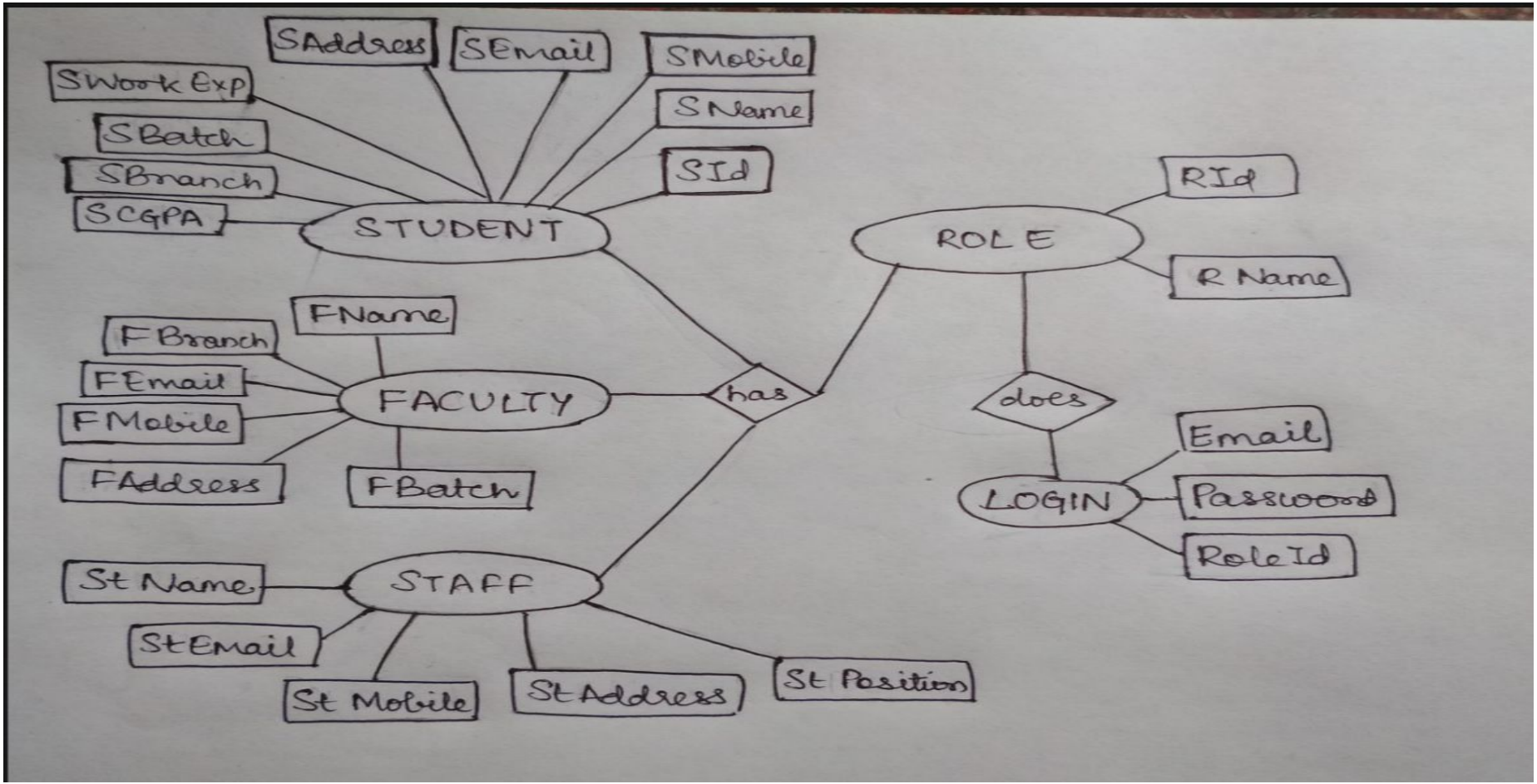
REQUIREMENT SPECIFICATION

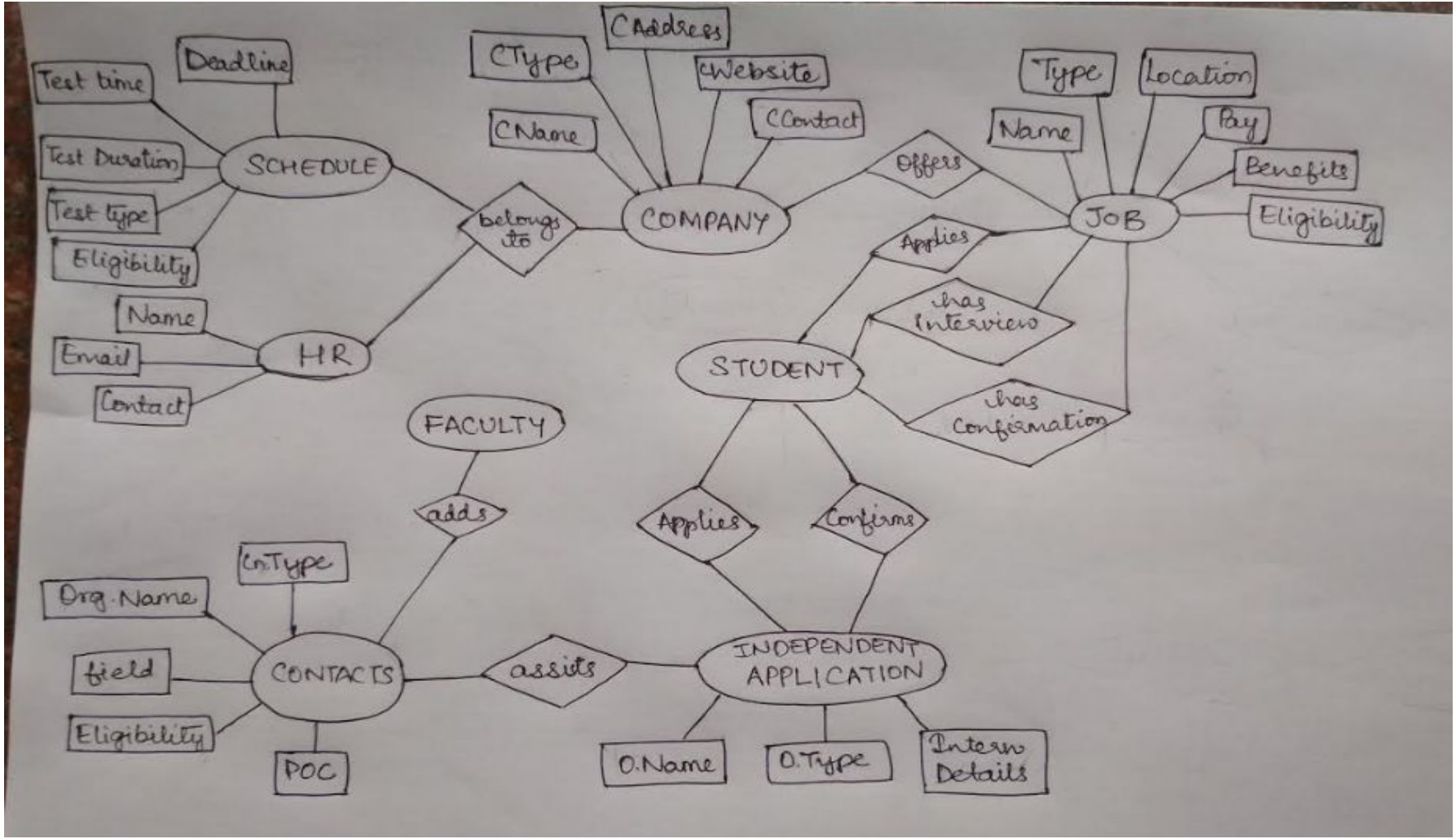
- The requirement of this project is to create an application interface for the stakeholders in a university, namely the students, faculty and staff (in this case, the CDC) for making the process of applying and viewing internship/placement information easier.
- The application should be user friendly and provide all the necessary functionalities.
- Each type of stakeholder has a different type of interface depending on the functions required by them.
- A student requires viewing contacts, viewing company schedule, applying independently for internships and viewing confirmed internships and placements.

- Faculty requires viewing and adding contacts, viewing company schedule and viewing the status of placements/internships the faculty is advising.
- CDC requires maintaining the company database, adding entries to company schedule, adding entries to job table, maintaining screening and interview entries and viewing the status of placements and internships.

- This project has been made using Java and Swing GUI with the help of Netbeans IDE, and Oracle database.

DATABASE DESIGN


SAddress
SEmail
SMobile
SWork Exp
SName
SBatch
SId
SBranch
SCGPA
STUDENT
RId
ROLE
RName
FName
FBranch
FEmail
FACULTY
has
does
FMobile
Email
FAddress
FBatch
LOGIN
Password
RoleId
St Name
STAFF
StEmail
St Mobile
St Address
St Position


Test time
Deadline
Test Duration
SCHEDULE
Test type
Eligibility
belongs to
CAddress
CType
CWebsite
CName
CContact
COMPANY
Offers
Type
Location
Name
Pay
Benefits
JOB
Eligibility
Applies
has Interviews
has Confirmation
Name
Email
Contact
HR
STUDENT
FACULTY
adds
Applies
Confirms
Cn.Type
Org. Name
field
CONTACTS
Eligibility
POC
assists
INDEPENDENT APPLICATION
O.Name
O.Type
Intern Details

The database consists of sixteen tables with various constraints and triggers as follows:

```
CREATE TABLE ROLE(
roleId INTEGER,
roleName VARCHAR(10) CHECK (roleName IN ('Student', 'Faculty', 'CDC')),
PRIMARY KEY(roleId)
);

CREATE TABLE USERLOGIN (
userEmail VARCHAR(20),
userPassword VARCHAR(35) NOT NULL,
userRoleId INTEGER NOT NULL,
PRIMARY KEY (userEmail),
CONSTRAINT FK_ROLE FOREIGN KEY (userRoleId) REFERENCES ROLE (roleId) ON DELETE CASCADE
);
```

```
CREATE TABLE FACULTY(
facultyName VARCHAR(20) NOT NULL,
facultyBranch VARCHAR(20),
facultyEmail VARCHAR(20),
facultyMobile INTEGER,
facultyAddress VARCHAR(40),
facultyAdvisingBatch INTEGER NOT NULL,
PRIMARY KEY(facultyEmail),
CONSTRAINT facBatchUnique UNIQUE(facultyBranch,facultyAdvisingBatch) ON DELETE CASCADE,
CONSTRAINT FK_facMail FOREIGN KEY (facultyEmail) REFERENCES USERLOGIN (userEmail) ON DELETE CASCADE
);
```

```
CREATE TABLE STUDENT (
studentId VARCHAR(10),
studentName VARCHAR(30) NOT NULL,
studentMobile INTEGER,
studentEmail VARCHAR(20) NOT NULL UNIQUE,
studentAddress VARCHAR(50),
studentPermAddress VARCHAR(40),
studentWorkExperience VARCHAR(50),
studentBatch VARCHAR(10),
studentBranch VARCHAR(20),
studentCGPA NUMBER(4,2),
PRIMARY KEY (studentID),
CONSTRAINT FK_stuMail FOREIGN KEY (studentEmail) REFERENCES USERLOGIN (userEmail) ON DELETE CASCADE
);
```

```
CREATE TABLE STAFF (
staffName VARCHAR(30),
staffEmail VARCHAR(20),
staffMobile INTEGER,
staffAddress VARCHAR(35),
staffPosition VARCHAR(20),
PRIMARY KEY (staffEmail),
CONSTRAINT FK_stafMail FOREIGN KEY (staffEmail) REFERENCES USERLOGIN (userEmail) ON DELETE CASCADE
);

CREATE TABLE HR_CONTACT(
hrId INTEGER,
hrName VARCHAR(20) NOT NULL,
hrEmail VARCHAR(20) NOT NULL,
hrContact INTEGER NOT NULL,
PRIMARY KEY(hrId)
);
```

```
CREATE TABLE COMPANY(
companyId INTEGER,
companyName VARCHAR(20) NOT NULL UNIQUE,
companyType VARCHAR(20),
companyAddressLine1 VARCHAR(20),
companyAddressLine2 VARCHAR(20),
companyAddressCity VARCHAR(15),
companyAddressState VARCHAR(20),
companyAddressCountry VARCHAR(15),
companyAddressPincode VARCHAR(10),
companyWebsite VARCHAR(20),
companyContact INTEGER NOT NULL,
companyIndustrySector VARCHAR(20),
companyHRId INTEGER NOT NULL UNIQUE,
PRIMARY KEY(companyId),
CONSTRAINT fk_HRID FOREIGN KEY (companyHRId) REFERENCES HR_CONTACT (hrId) ON DELETE CASCADE
);
```

```
CREATE TABLE COMPANY_SCHEDULE (
companyId INTEGER,
deadline TIMESTAMP,
testTime TIMESTAMP,
testDuration INTEGER,
testType VARCHAR(10) CHECK (testType IN ('Internship','Full-time','Both')),
testEligibilityCGPA NUMBER(4,2),
testEligibilityBranch VARCHAR(15),
PRIMARY KEY (companyID, testTime),
CONSTRAINT FK_SCHD_COMPID FOREIGN KEY (companyId) REFERENCES COMPANY(companyID) ON DELETE CASCADE
);

CREATE TABLE JOB (
jobId INTEGER,
jobName VARCHAR(30) NOT NULL,
jobType VARCHAR(10) CHECK (jobType IN ('Internship', 'Full-time')),
jobLocation VARCHAR(10),
jobPay INTEGER,
jobEligibility VARCHAR(30),
jobBenefits VARCHAR(30),
PRIMARY KEY (jobID)
);
```

```
CREATE TABLE OFFEREDJOB (
jobId INTEGER NOT NULL,
companyId INTEGER NOT NULL,
CONSTRAINT FK_OFFER_JOBID FOREIGN KEY (jobId) REFERENCES JOB(jobId) ON DELETE CASCADE,
CONSTRAINT FK_OFFER_COMPID FOREIGN KEY (companyId) REFERENCES COMPANY(companyId) ON DELETE CASCADE
);

CREATE TABLE SCREENING (
studentId VARCHAR(10) NOT NULL,
companyId INTEGER NOT NULL,
CONSTRAINT FK_JOB_COMPID FOREIGN KEY (companyId) REFERENCES COMPANY(companyId) ON DELETE CASCADE,
CONSTRAINT fk_sIdScreen FOREIGN KEY (studentId) REFERENCES STUDENT (studentId) ON DELETE CASCADE
);

CREATE TABLE INTERVIEW(
companyId INTEGER NOT NULL,
jobId INTEGER NOT NULL,
studentId VARCHAR(10) NOT NULL,
PRIMARY KEY (studentId, companyId),
CONSTRAINT sInterviewUnique UNIQUE(companyId,studentId),
CONSTRAINT fk_cIdIntrvw FOREIGN KEY (companyId) REFERENCES COMPANY (companyId) ON DELETE CASCADE,
CONSTRAINT fk_sIdIntrvw FOREIGN KEY (studentId) REFERENCES STUDENT (studentId) ON DELETE CASCADE,
CONSTRAINT fk_jIdIntrvw FOREIGN KEY (jobId) REFERENCES JOB (jobId) ON DELETE CASCADE
);
```

```
CREATE TABLE ONCAMP_CONFIRMATION(
studentId VARCHAR(10) UNIQUE NOT NULL,
companyId INTEGER NOT NULL,
jobId INTEGER NOT NULL,
CONSTRAINT fk_sIdOncmpCnfn FOREIGN KEY (studentId, companyId) REFERENCES INTERVIEW (studentId, companyID) ON DELETE CASCADE,
CONSTRAINT fk_jIdOncmpCnfn FOREIGN KEY (jobId) REFERENCES JOB (jobId) ON DELETE CASCADE
);

CREATE TABLE OTHER_CONTACTS(
contactId INTEGER,
contactType VARCHAR(10) CHECK (contactType IN ('University', 'Company')),
organisationName VARCHAR(40) NOT NULL,
field VARCHAR(30) NOT NULL,
eligibility VARCHAR(30),
pointOfContact VARCHAR(20) NOT NULL,
PRIMARY KEY(contactId)
);
```

```
CREATE TABLE INDEP_APPLICATION (
organisationId INTEGER,
studentId VARCHAR(10) NOT NULL,
organisationName VARCHAR(50) NOT NULL,
organisationType VARCHAR(10) CHECK (organisationType IN ('University', 'Company')),
internDetails VARCHAR(40),
PRIMARY KEY (organisationId, studentId),
CONSTRAINT fk_sIdIndpAppl FOREIGN KEY (studentId) REFERENCES STUDENT (studentId) ON DELETE CASCADE
);

CREATE TABLE INDEP_CONFIRMATION(
studentId VARCHAR(10) NOT NULL,
confirmed CHAR(1) CHECK (confirmed IN ('Y', 'N')),
organisationId INTEGER NOT NULL,
CONSTRAINT fk_sIdIndpCnfm FOREIGN KEY (organisationId, studentId) REFERENCES INDEP_APPLICATION (organisationId, studentId)
ON DELETE CASCADE
);
```

SEQUENCES:

```
CREATE SEQUENCE comSeq
        START WITH 1
        INCREMENT BY 1;
CREATE SEQUENCE HRSeq
        START WITH 1
        INCREMENT BY 1;
CREATE SEQUENCE conSeq
        START WITH 1
        INCREMENT BY 1;
CREATE SEQUENCE indepAppl
        START WITH 1
        INCREMENT BY 1;
CREATE SEQUENCE indepConf
        START WITH 1
        INCREMENT BY 1;
```

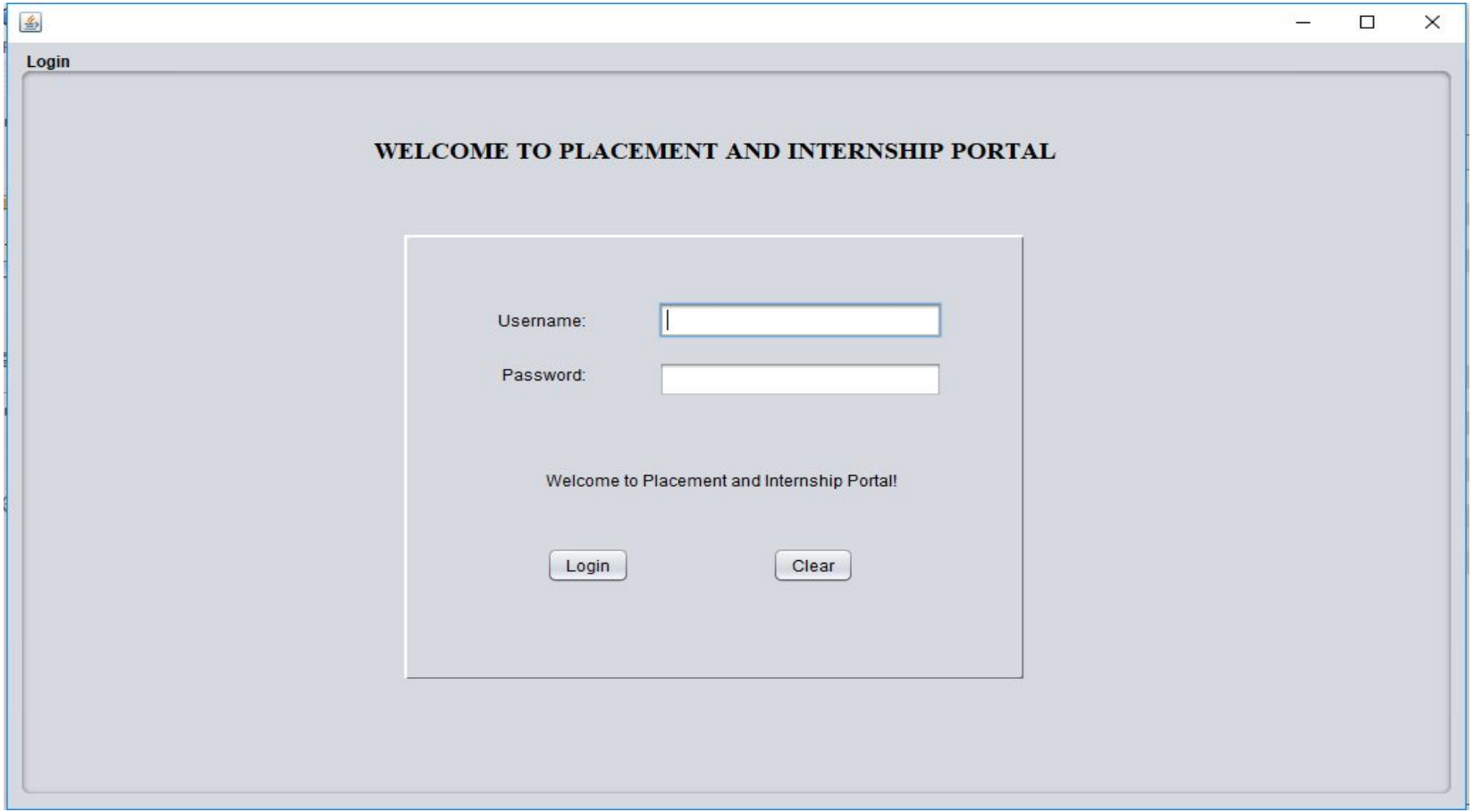
TRIGGERS:

```
CREATE OR REPLACE TRIGGER CheckDate
BEFORE INSERT
ON COMPANY_SCHEDULE
FOR EACH ROW

BEGIN
        IF :NEW.DEADLINE < SYSDATE  THEN
                raise_application_error(-20101, 'Invalid Deadline');
        ELSIF :NEW.TESTTIME < :NEW.DEADLINE THEN
                raise_application_error(-20102, 'Invalid Test Date');
        END IF;
END;
/
```

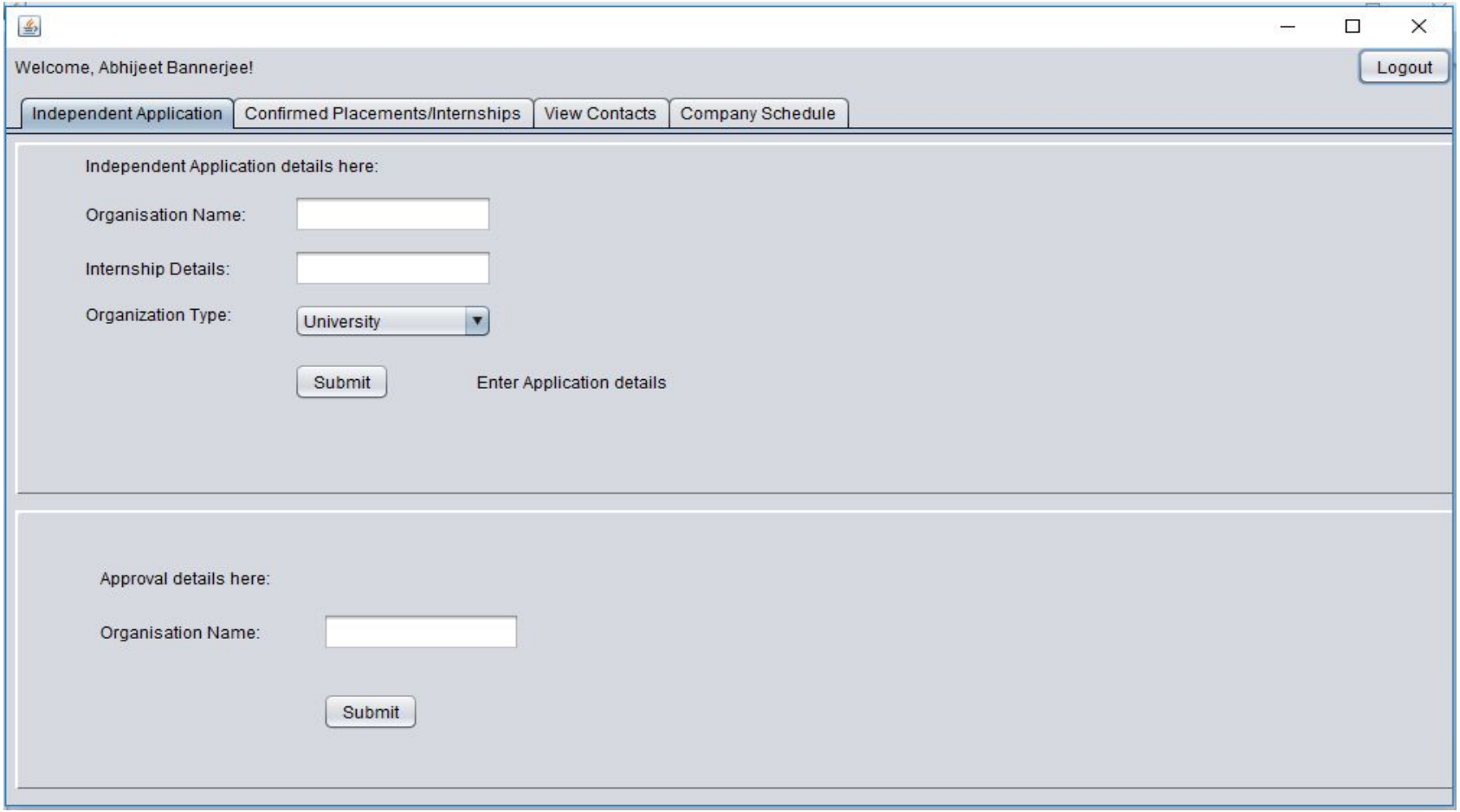
```
CREATE OR REPLACE TRIGGER CheckContactHR
BEFORE INSERT
ON HR_CONTACT
FOR EACH ROW

BEGIN
        IF :NEW.hrContact < 7000000000 AND :NEW.hrContact > 9999999999 THEN
                raise_application_error(-20103, 'Invalid Contact Number Format');
        END IF;
END;
/
```

APPLICATION DESIGN

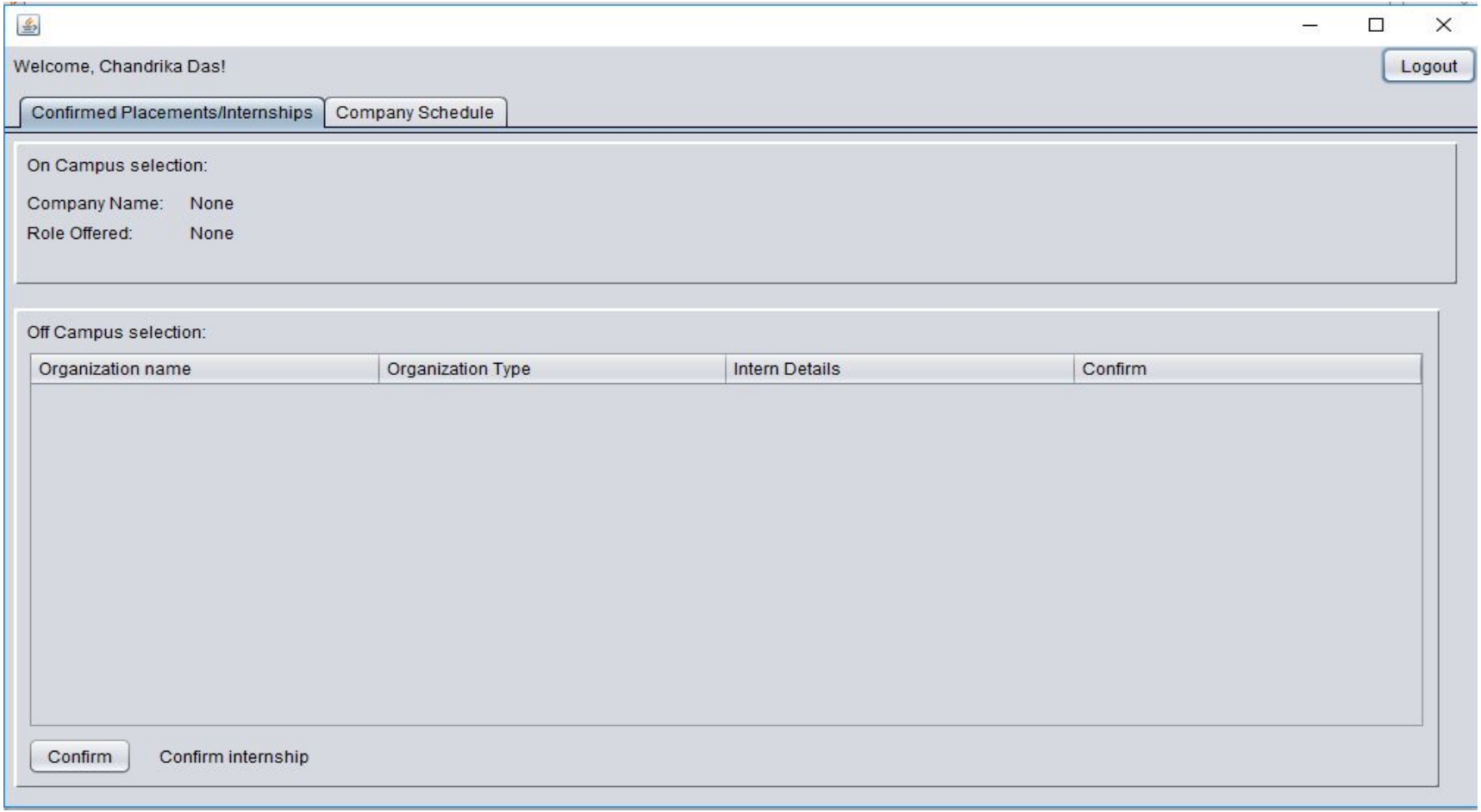
LOGIN PAGE


Login
WELCOME TO PLACEMENT AND INTERNSHIP PORTAL
Username:
Password:
Welcome to Placement and Internship Portal!
Login
Clear

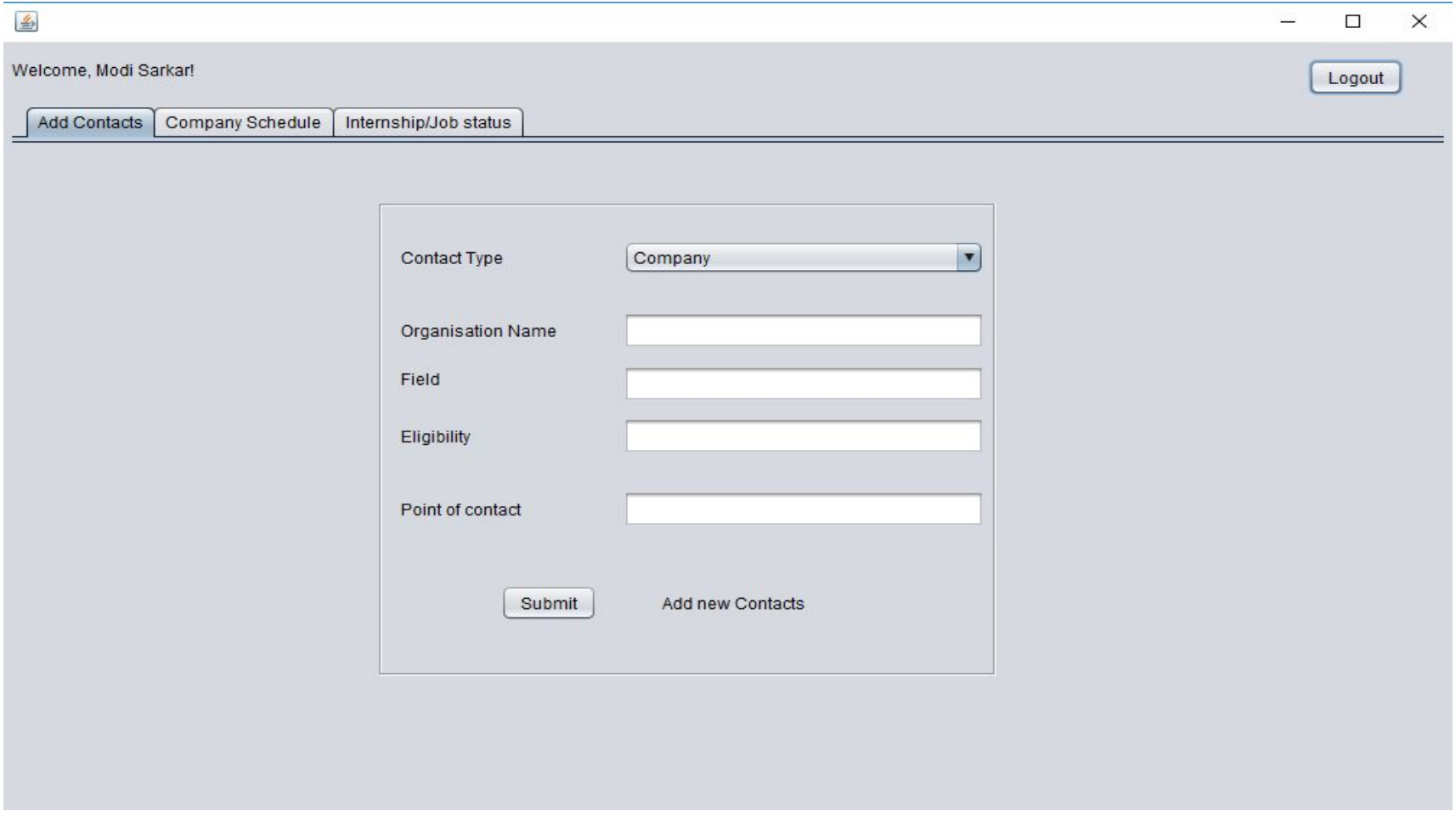
STUDENT DASHBOARD (3RD YEAR STUDENT)



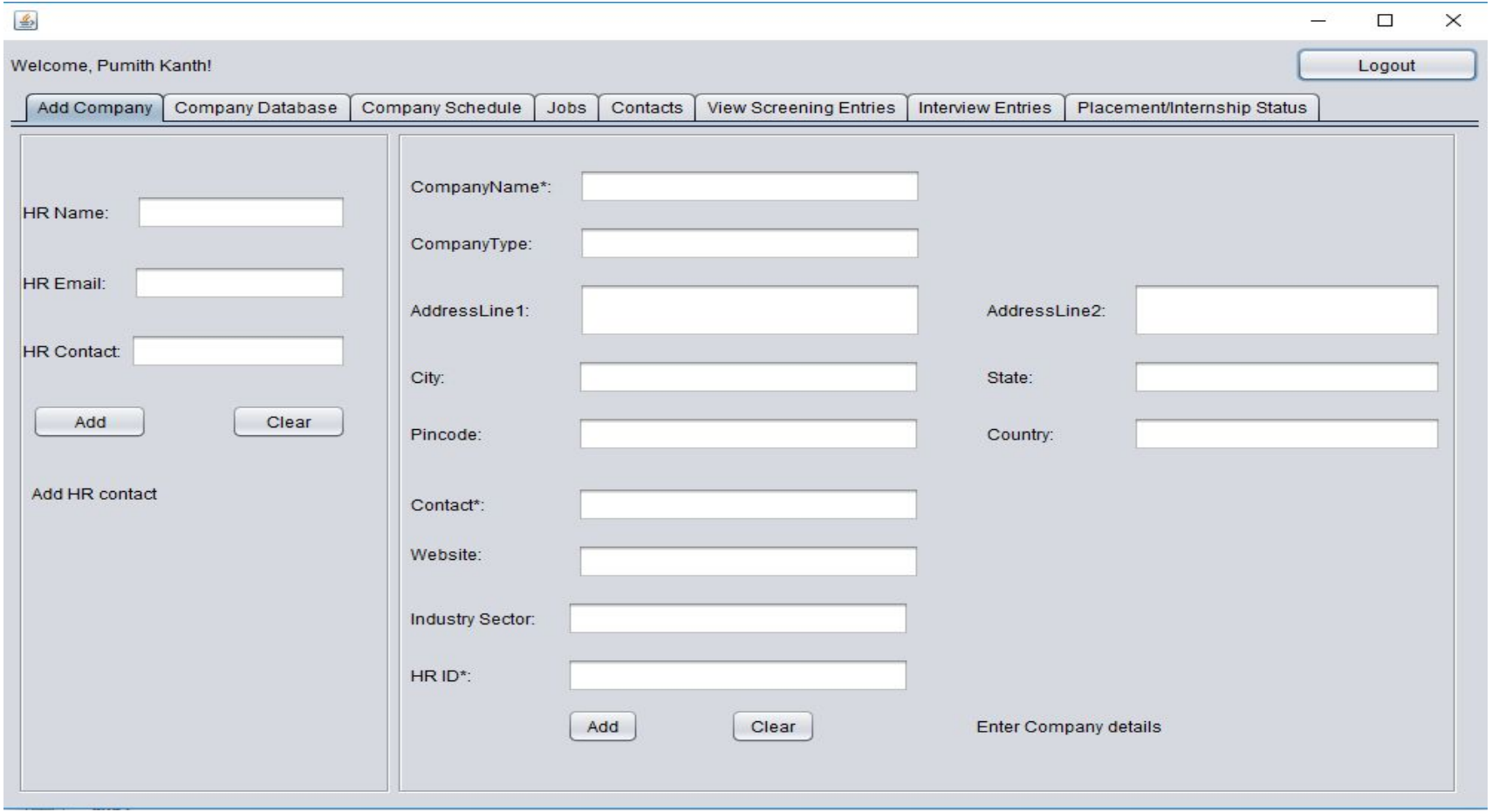
STUDENT DASHBOARD (4TH YEAR STUDENT)



FACULTY DASHBOARD

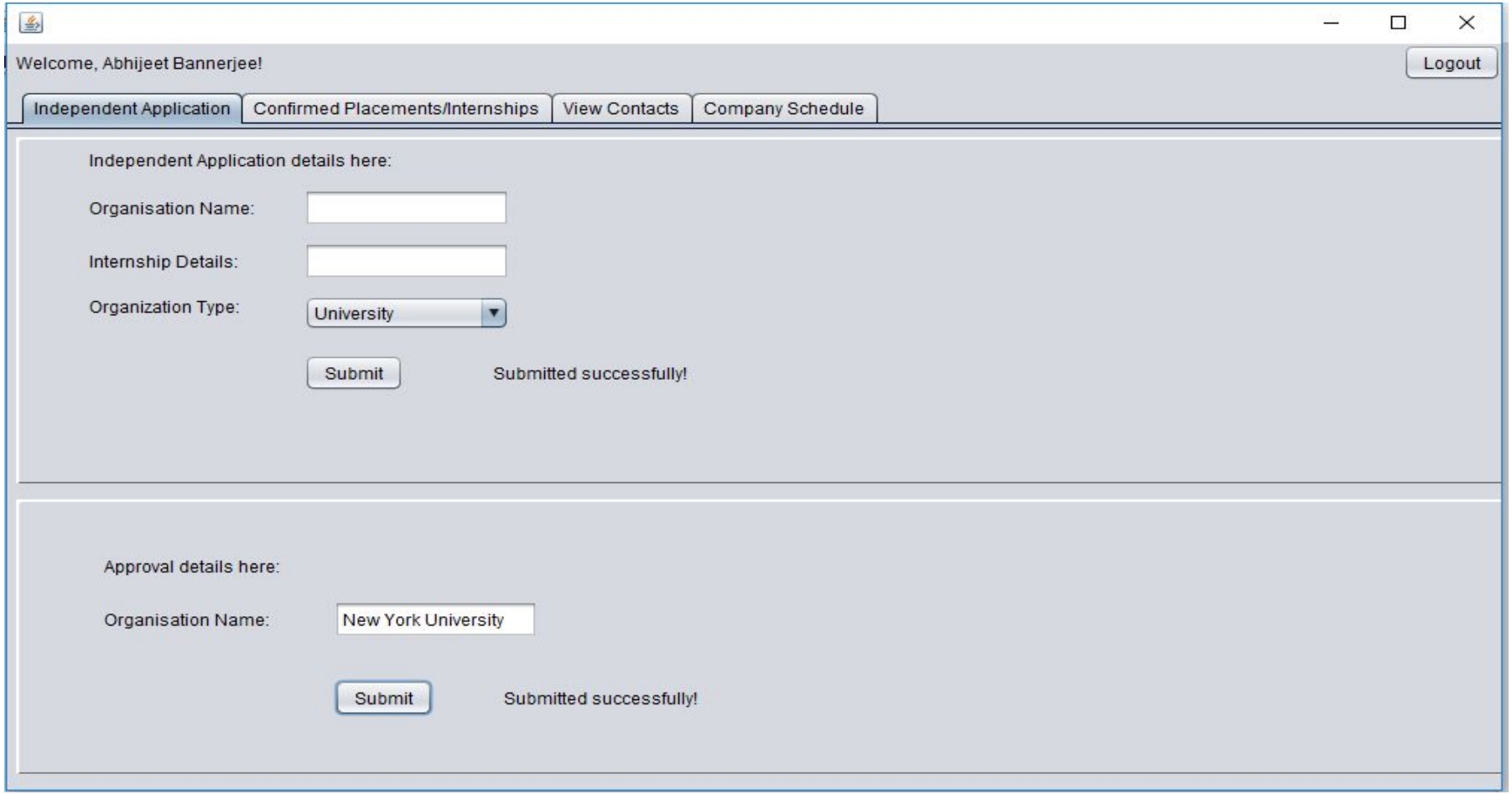


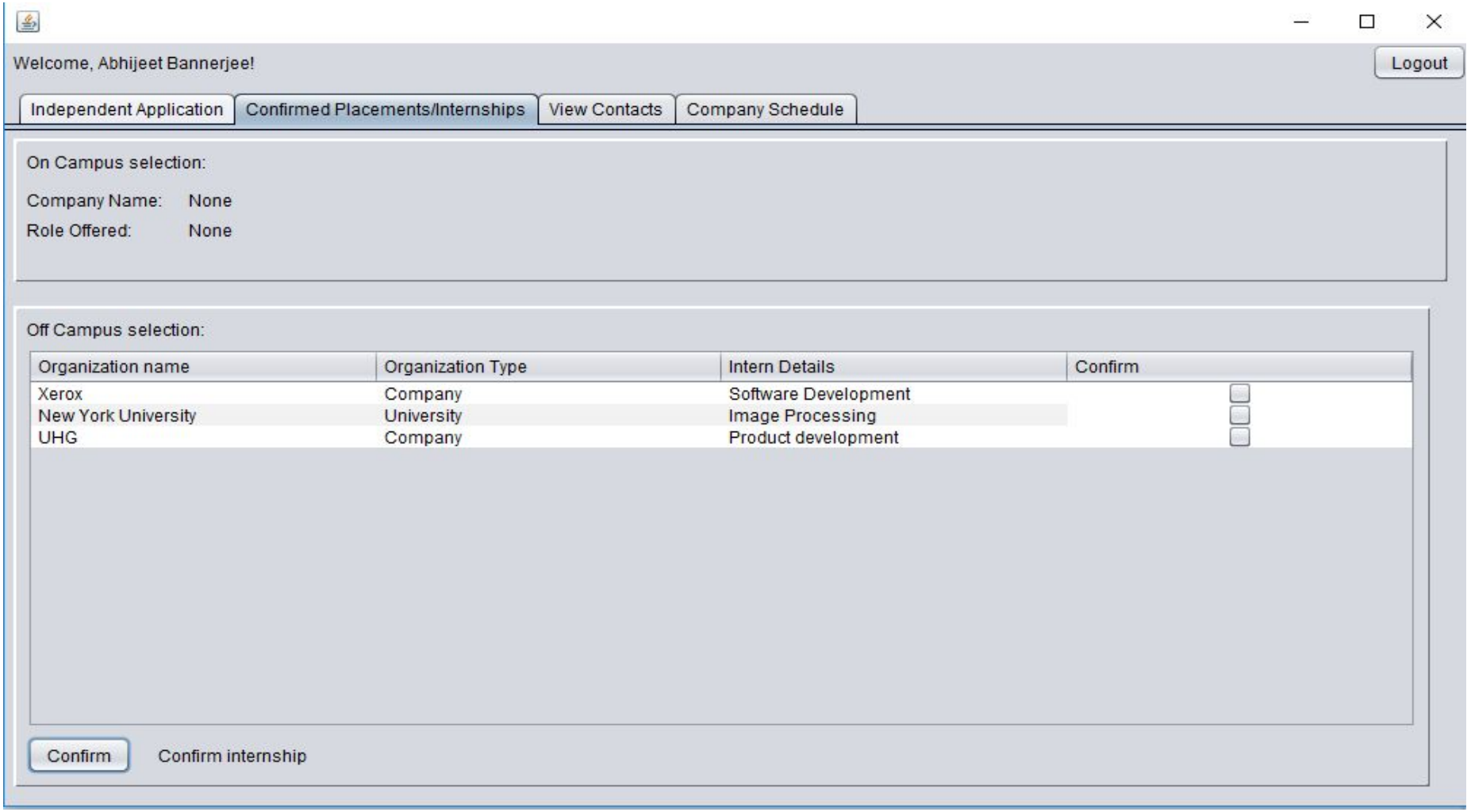
CDC DASHBOARD

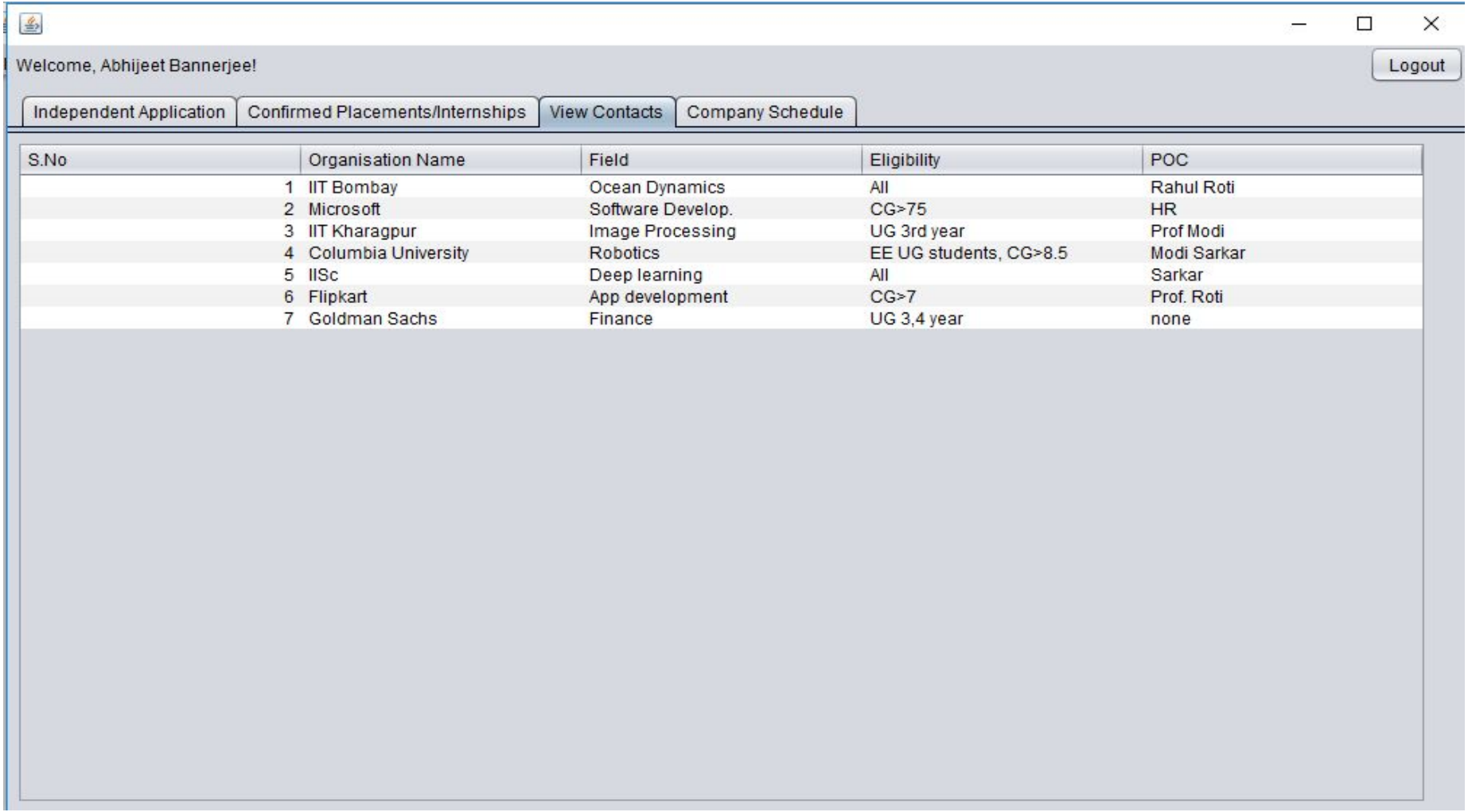


WORKING

WORKING OF STUDENT DASHBOARD:




Welcome, Abhijeet Bannerjee!
Logout
Independent Application
Confirmed Placements/Internships
View Contacts
Company Schedule
On Campus selection:
Company Name: None
Role Offered: None
Off Campus selection:
Organization name
Organization Type
Intern Details
Confirm
Xerox
Company
Software Development
New York University
University
Image Processing
UHG
Company
Product development
Confirm
Confirm internship


Welcome, Abhijeet Bannerjee!
Logout
Independent Application
Confirmed Placements/Internships
View Contacts
Company Schedule
S.No
Organisation Name
Field
Eligibility
POC
1 IIT Bombay Ocean Dynamics All Rahul Roti
2 Microsoft Software Develop. CG>75 HR
3 IIT Kharagpur Image Processing UG 3rd year Prof Modi
4 Columbia University Robotics EE UG students, CG>8.5 Modi Sarkar
5 IISc Deep learning All Sarkar
6 Flipkart App development CG>7 Prof. Roti
7 Goldman Sachs Finance UG 3,4 year none

Welcome, Abhijeet Bannerjee!

Logout

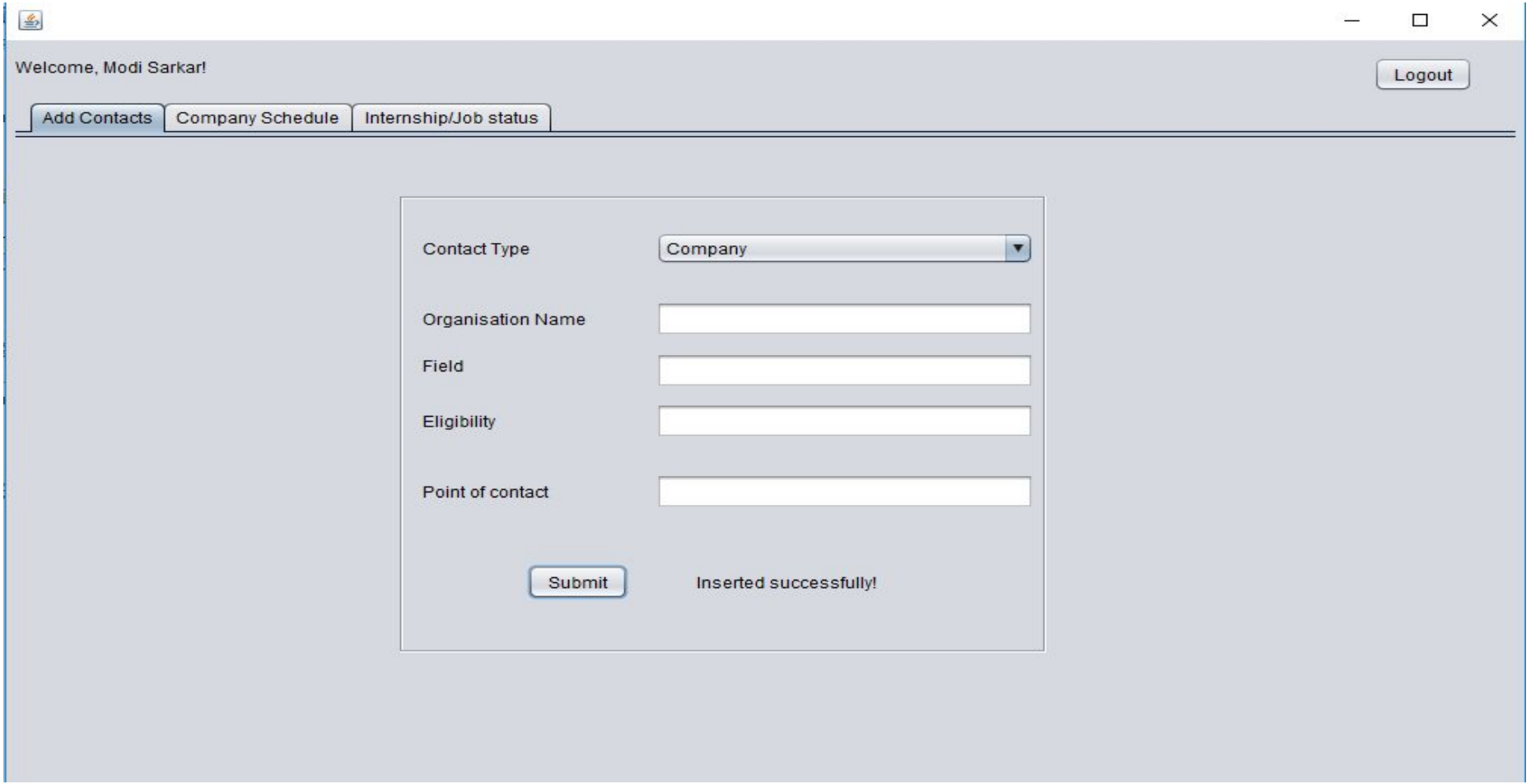
Independent Application | Confirmed Placements/Internships | View Contacts | Company Schedule

S.No	Company ID	Company Na...	Test Type	Deadline	Test time	Test Duration	Eleg. CGPA	Eleg. Branch	Apply
1	1	Amazon	Internship	2017-11-25 0...	2017-12-05 0...	3	8	CSE	

Submit

Select for Screening

WORKING OF FACULTY DASHBOARD:



Welcome, Modi Sarkar!

Logout

Add Contacts | Company Schedule | Internship/Job status

S no	Company Name	Test Date	Test Type	Eligibility CGPA	Eligibility Branch
1	Amazon	2017-12-05 05:15:00.0	Internship	8	CSE

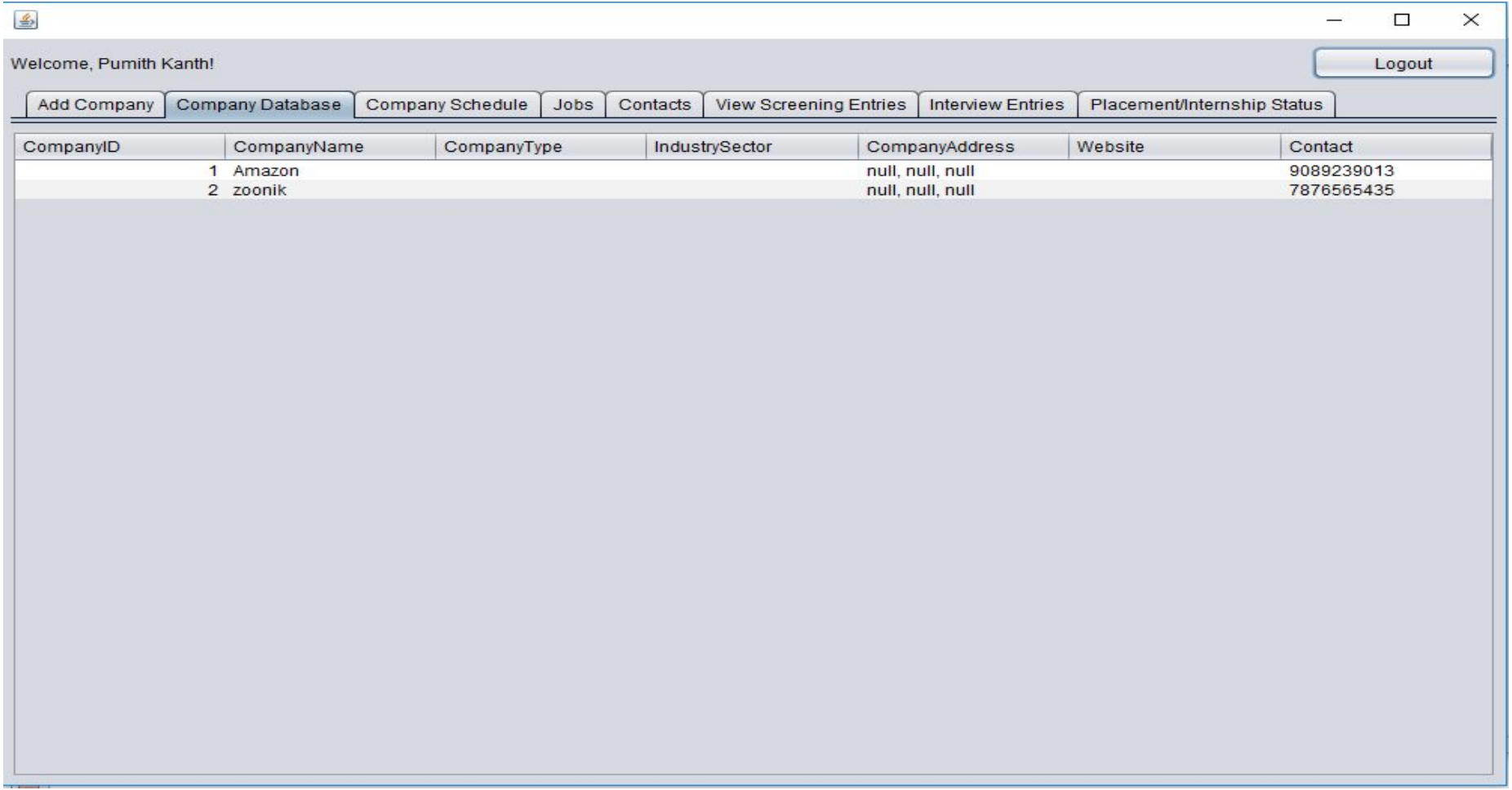
Welcome, Modi Sarkar!

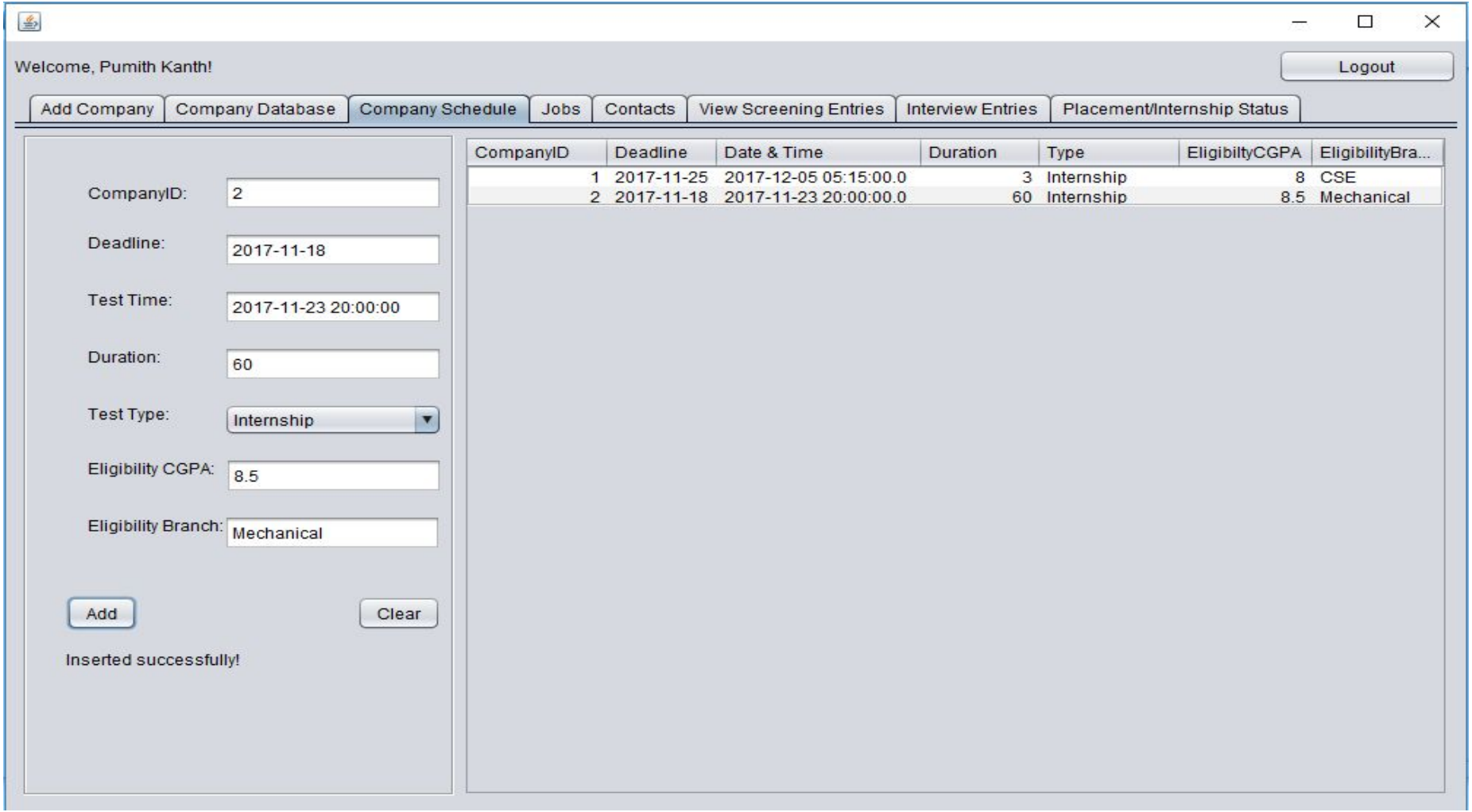
Logout

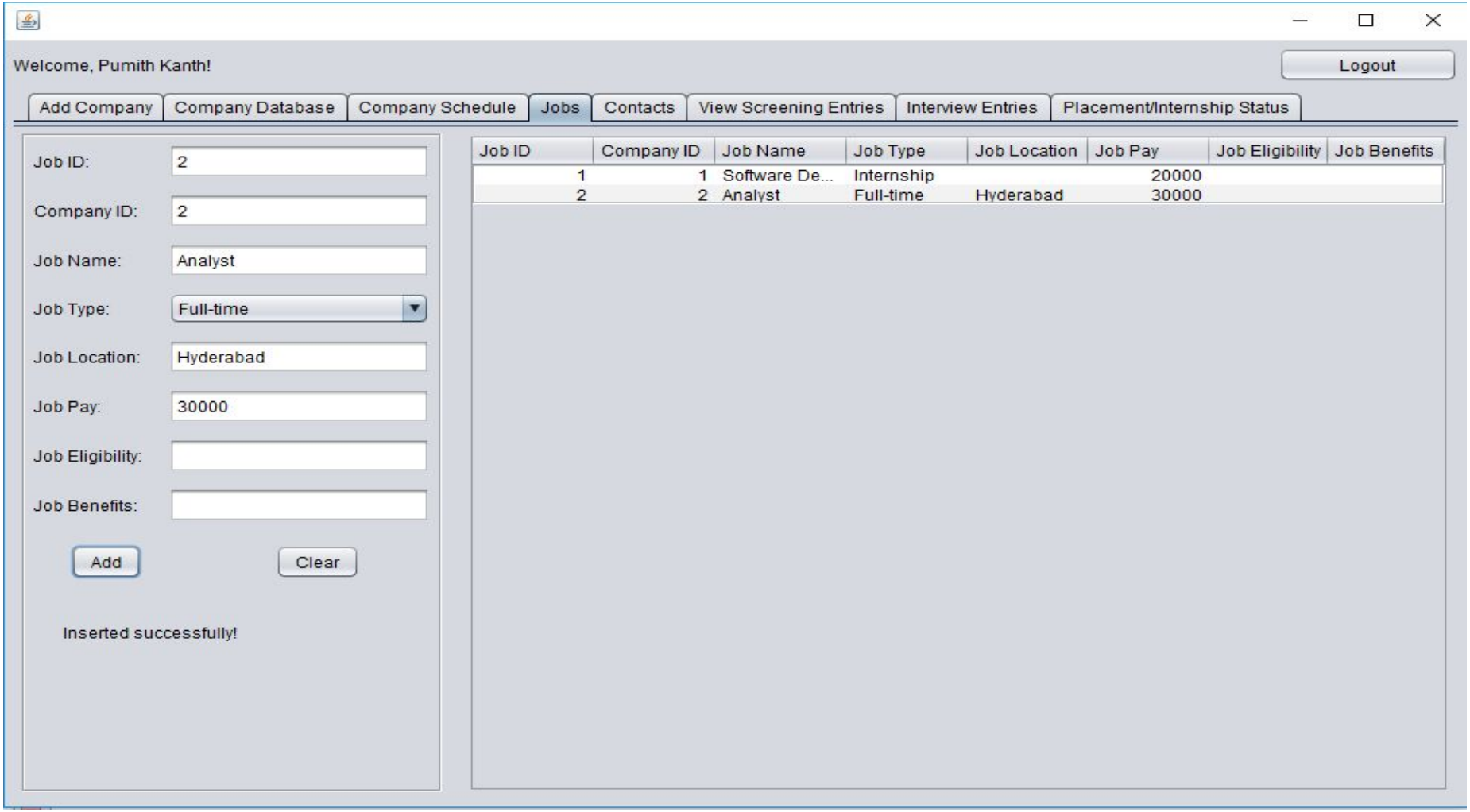
Add Contacts | Company Schedule | Internship/Job status

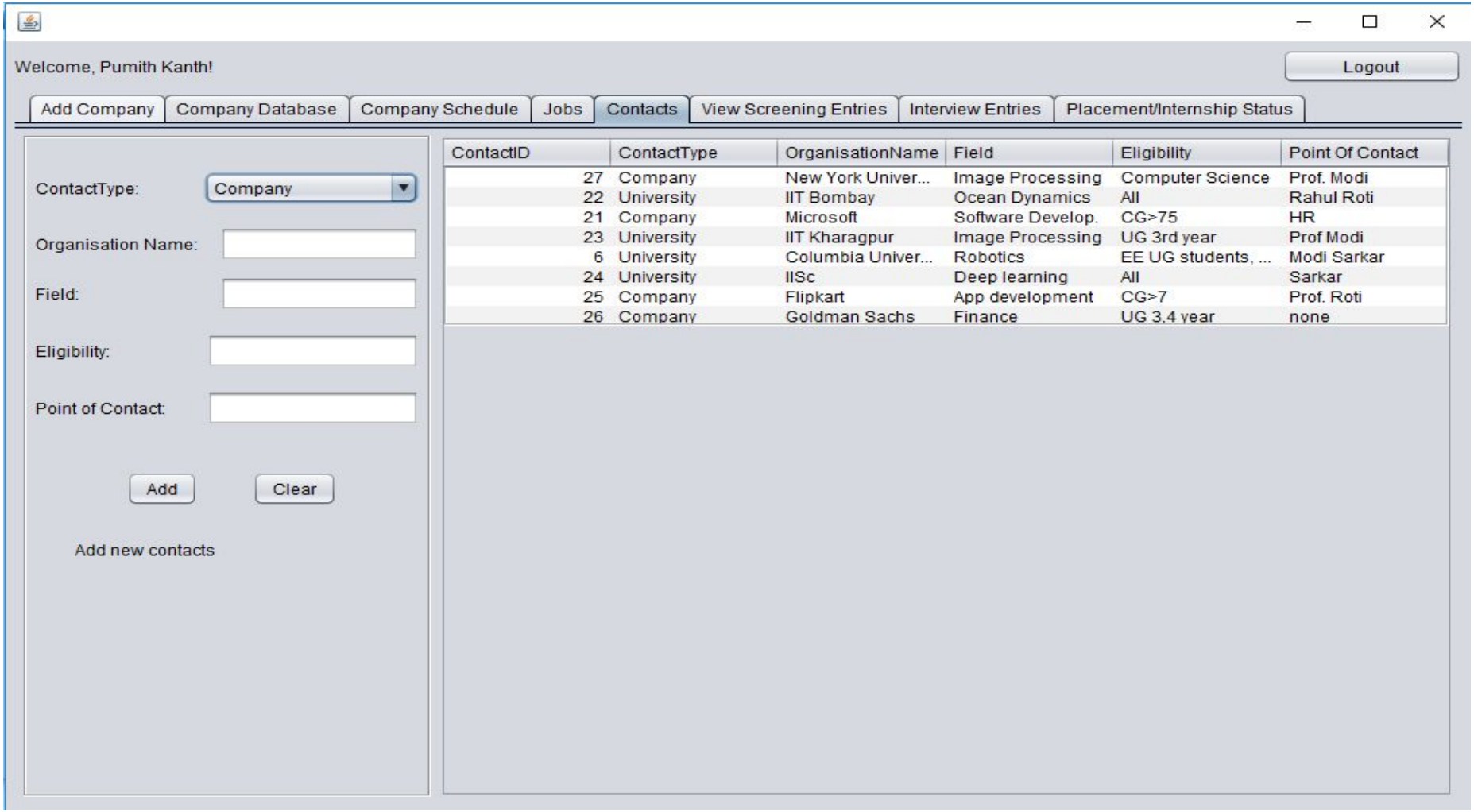
S no	Student Id	Student Name	Organisation Name
1	15CS01001	Abhijeet Bannerjee	Xerox

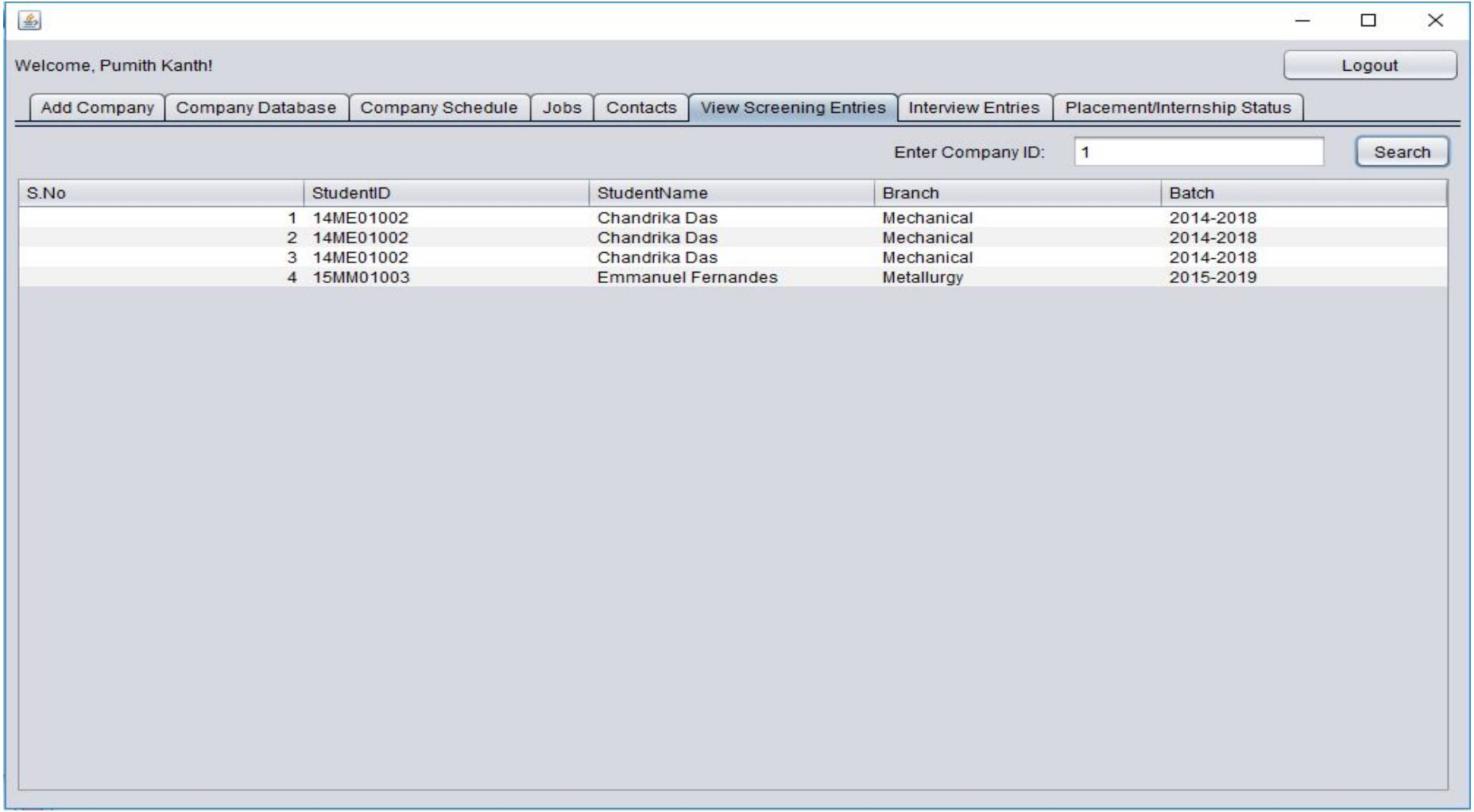
WORKING OF CDC DASHBOARD:

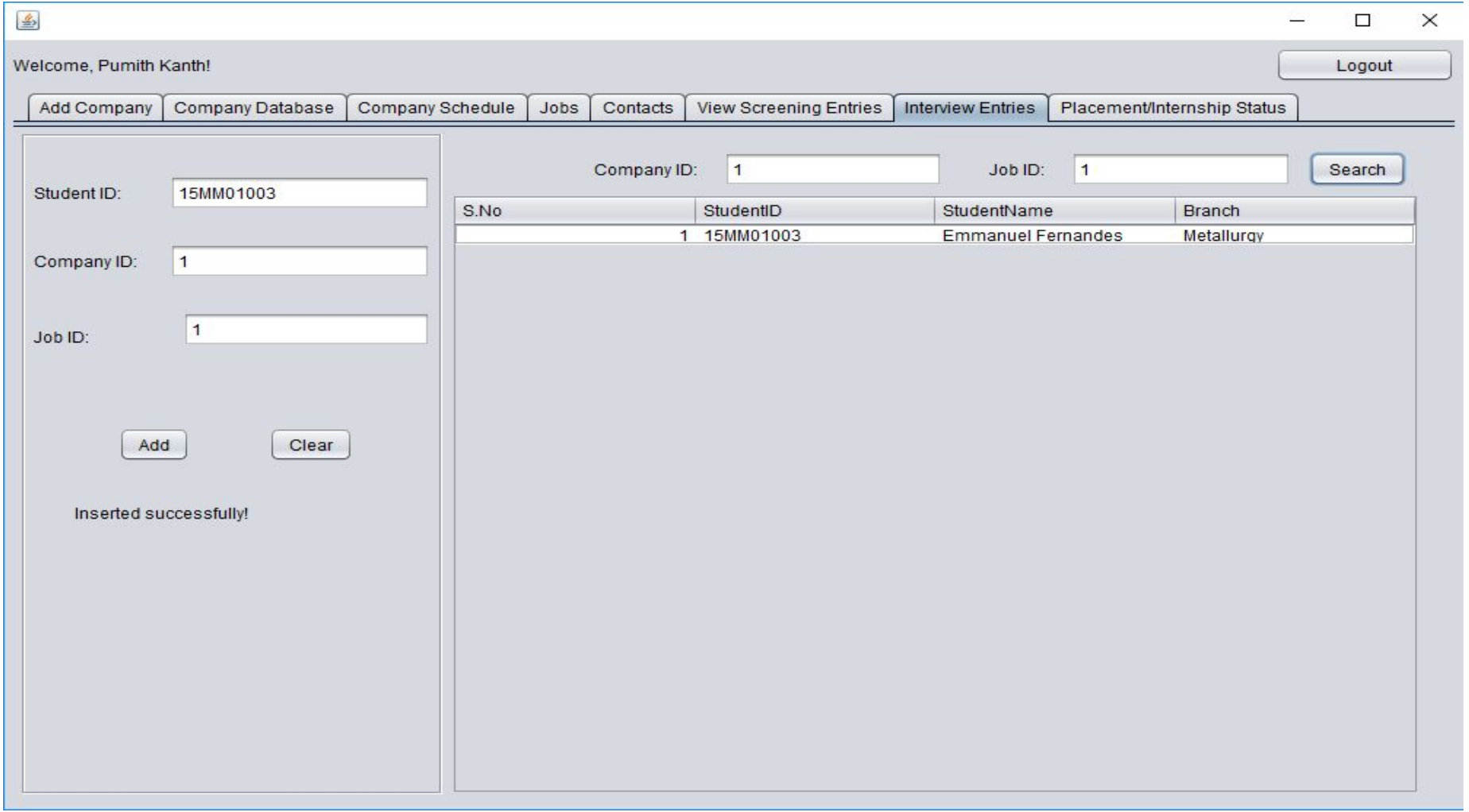


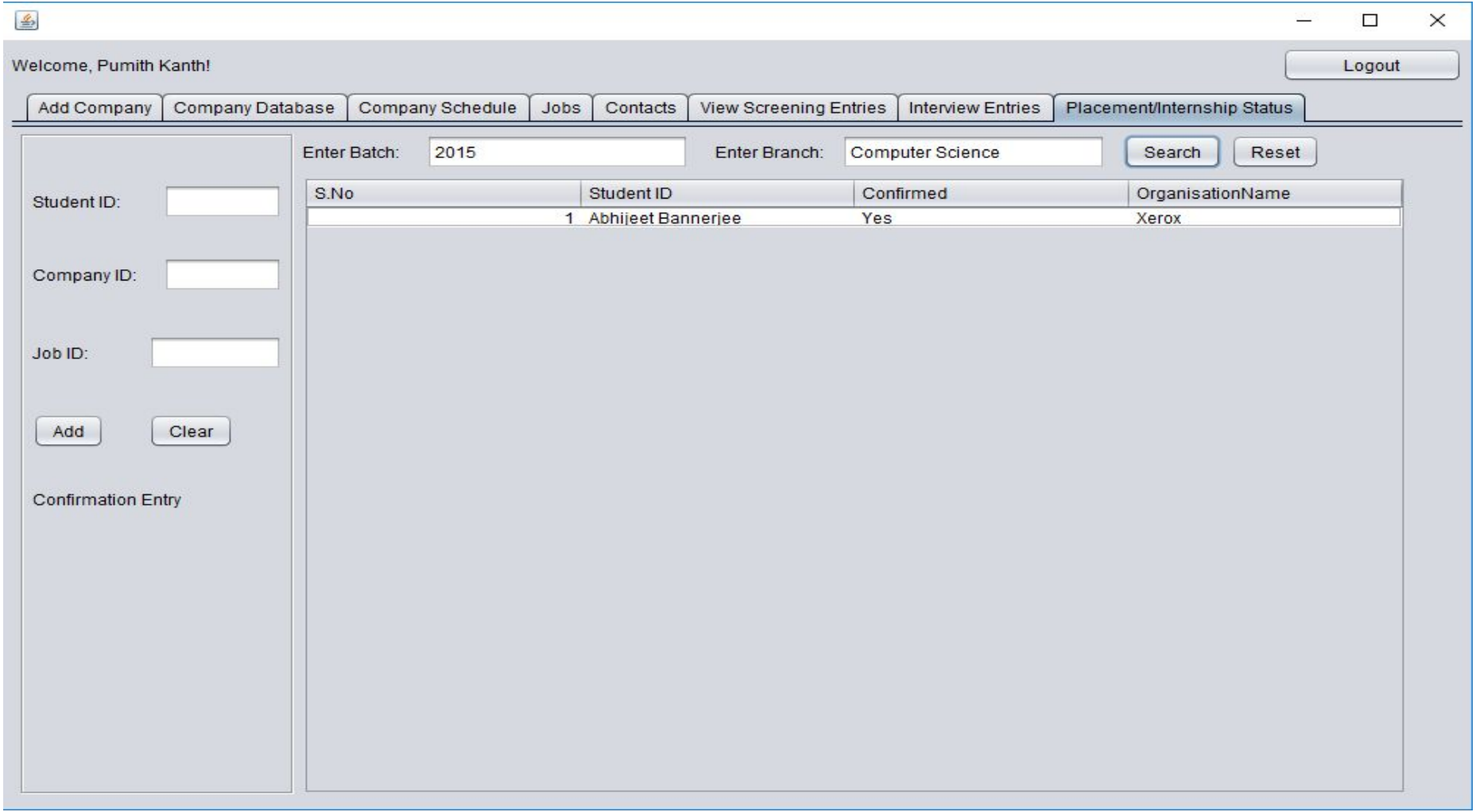

Welcome, Pumith Kanth!
Logout
Add Company
Company Database
Company Schedule
Jobs
Contacts
View Screening Entries
Interview Entries
Placement/Internship Status
CompanyID:
2
Deadline:
2017-11-18
Test Time:
2017-11-23 20:00:00
Duration:
60
Test Type:
Internship
Eligibility CGPA:
8.5
Eligibility Branch:
Mechanical
Add
Clear
Inserted successfully!
CompanyID
Deadline
Date & Time
Duration
Type
EligibiltyCGPA
EligibilityBra...
1 2017-11-25 2017-12-05 05:15:00.0 3 Internship 8 CSE
2 2017-11-18 2017-11-23 20:00:00.0 60 Internship 8.5 Mechanical


Welcome, Pumith Kanth!
Logout
Add Company
Company Database
Company Schedule
Jobs
Contacts
View Screening Entries
Interview Entries
Placement/Internship Status
Job ID: 2
Company ID: 2
Job Name: Analyst
Job Type: Full-time
Job Location: Hyderabad
Job Pay: 30000
Job Eligibility:
Job Benefits:
Add
Clear
Inserted successfully!
Job ID | Company ID | Job Name | Job Type | Job Location | Job Pay | Job Eligibility | Job Benefits
1 | 1 | Software De... | Internship | | 20000 |
2 | 2 | Analyst | Full-time | Hyderabad | 30000 |


Welcome, Pumith Kanth!
Logout
Add Company
Company Database
Company Schedule
Jobs
Contacts
View Screening Entries
Interview Entries
Placement/Internship Status
ContactType:
Company
Organisation Name:
Field:
Eligibility:
Point of Contact:
Add
Clear
Add new contacts
ContactID
ContactType
OrganisationName
Field
Eligibility
Point Of Contact
27 Company New York Univer... Image Processing Computer Science Prof. Modi
22 University IIT Bombay Ocean Dynamics All Rahul Roti
21 Company Microsoft Software Develop. CG>75 HR
23 University IIT Kharagpur Image Processing UG 3rd year Prof Modi
6 University Columbia Univer... Robotics EE UG students, ... Modi Sarkar
24 University IISc Deep learning All Sarkar
25 Company Flipkart App development CG>7 Prof. Roti
26 Company Goldman Sachs Finance UG 3,4 year none


Welcome, Pumith Kanth!
Logout
Add Company
Company Database
Company Schedule
Jobs
Contacts
View Screening Entries
Interview Entries
Placement/Internship Status
Enter Company ID:
1
Search
S.No
StudentID
StudentName
Branch
Batch
1 14ME01002 Chandrika Das Mechanical 2014-2018
2 14ME01002 Chandrika Das Mechanical 2014-2018
3 14ME01002 Chandrika Das Mechanical 2014-2018
4 15MM01003 Emmanuel Fernandes Metallurgy 2015-2019


Welcome, Pumith Kanth!
Logout
Add Company
Company Database
Company Schedule
Jobs
Contacts
View Screening Entries
Interview Entries
Placement/Internship Status
Student ID:
15MM01003
Company ID:
1
Job ID:
1
Add
Clear
Inserted successfully!
Company ID:
1
Job ID:
1
Search
S.No
StudentID
StudentName
Branch
1
15MM01003
Emmanuel Fernandes
Metallurgy


Welcome, Pumith Kanth!
Logout
Add Company
Company Database
Company Schedule
Jobs
Contacts
View Screening Entries
Interview Entries
Placement/Internship Status
Student ID:
Company ID:
Job ID:
Add
Clear
Confirmation Entry
Enter Batch:
2015
Enter Branch:
Computer Science
Search
Reset
S.No
Student ID
Confirmed
OrganisationName
1
Abhijeet Bannerjee
Yes
Xerox

LIMITATIONS

- This application is a client side application which has to be downloaded by every client and not hosted on a common website. The application works by connecting to a central database residing on the main server.

- The user has to login everytime to check status, instead of getting automatic updates and notifications to their mail.

CONCLUSION AND FUTURE PLANS

- This project was a small step to create an integrated interface for all the users in the college to streamline the process of applying and viewing internship and placement status with the necessary functions provided to each user appropriately.

- The interface could be migrated onto an online platform which would provide automatic updates regarding new companies and reminders for interviews etc and could be made easier to use and handle.

- Further file and image handling could be implemented to handle resumes, application and approval letters as well.

- Using PDF generation, NOCs could be automatically generated and sent to the students based on the confirmed organisation name.

THANK YOU!