Placements Management System

Requirements

1) Functional Requirements

(1) It should have an authentication system where student, admin, companies can login.

(2) Companies can post postings for jobs or interns

(3) Companies can close a posting after hiring zero or some students.

(4) Companies can hire students who have applied to their postings

(5) Student can apply to intern posting or job posting

(6) Admin can verify jobs & ban a misleading company

(7) Admin can ban students for cheating

2) Non Functional Requirements

① Company cannot delete a posting once posted.

① Everything goes under the eyes of admin to maintain & prevent plaigairism.

② System should be secure & each actor should do only its assigned task.

③ It should handle load of upto 10000 students & upto 500 companies

④ It should be easey to use with a good user interface

⑤ It should be maintainable

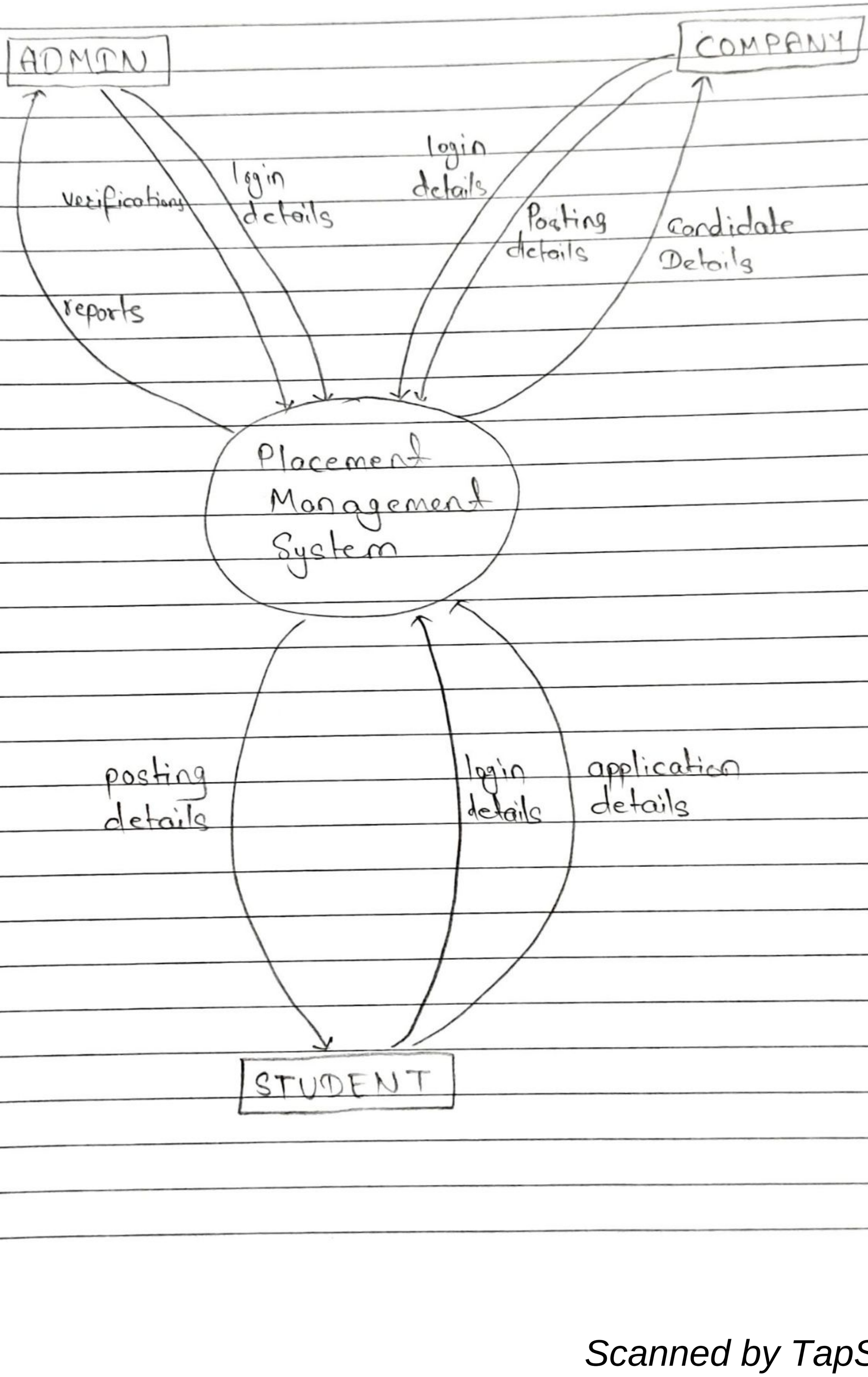
3) Mis-use cases

① Company cannot delete a posting once posted, it can only close it after hiring.

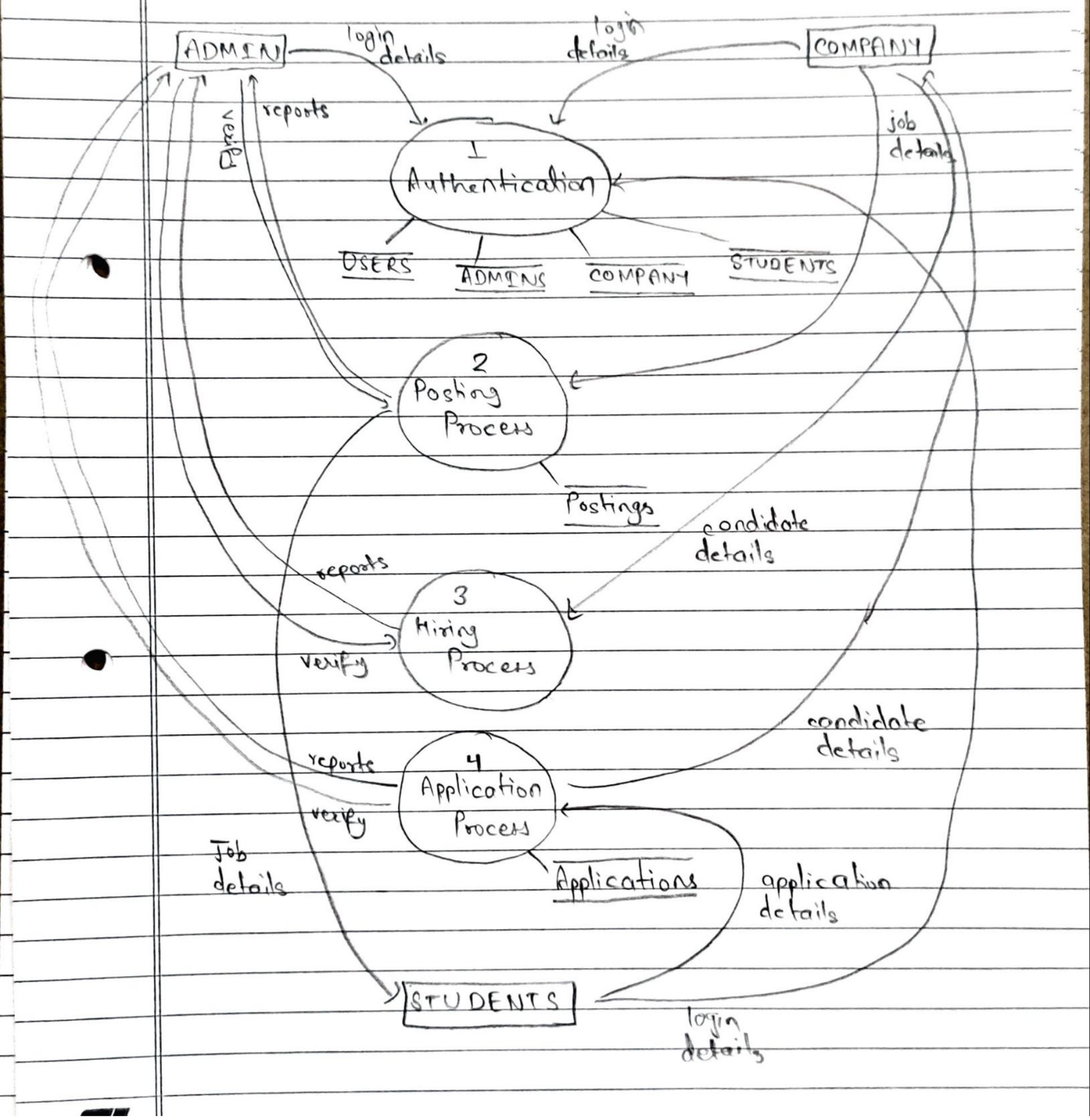
② Students cannot delete their application once submitted

③ Students cannot reject the offer once hired.

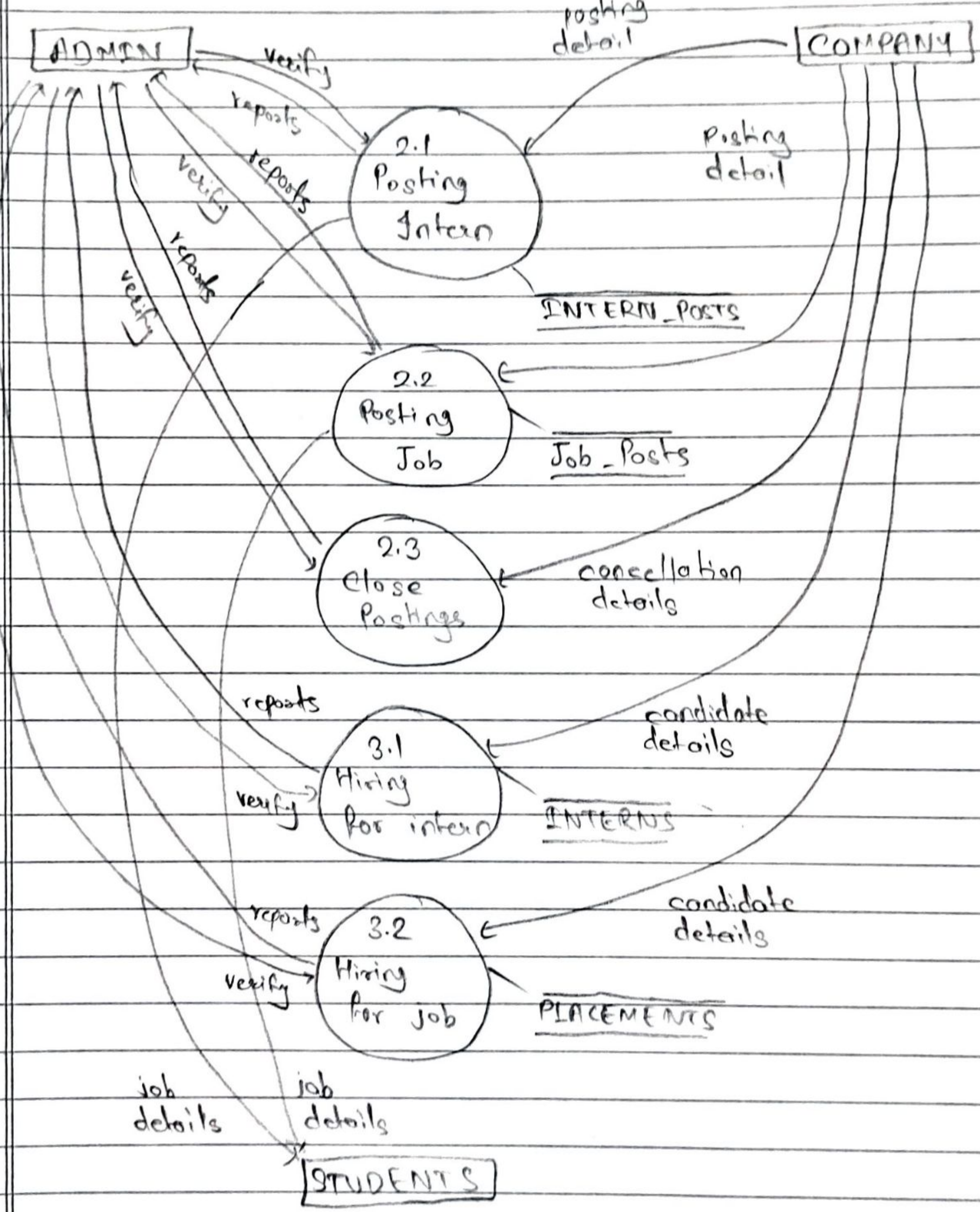
DFD Level - 0 (Context Diagram)



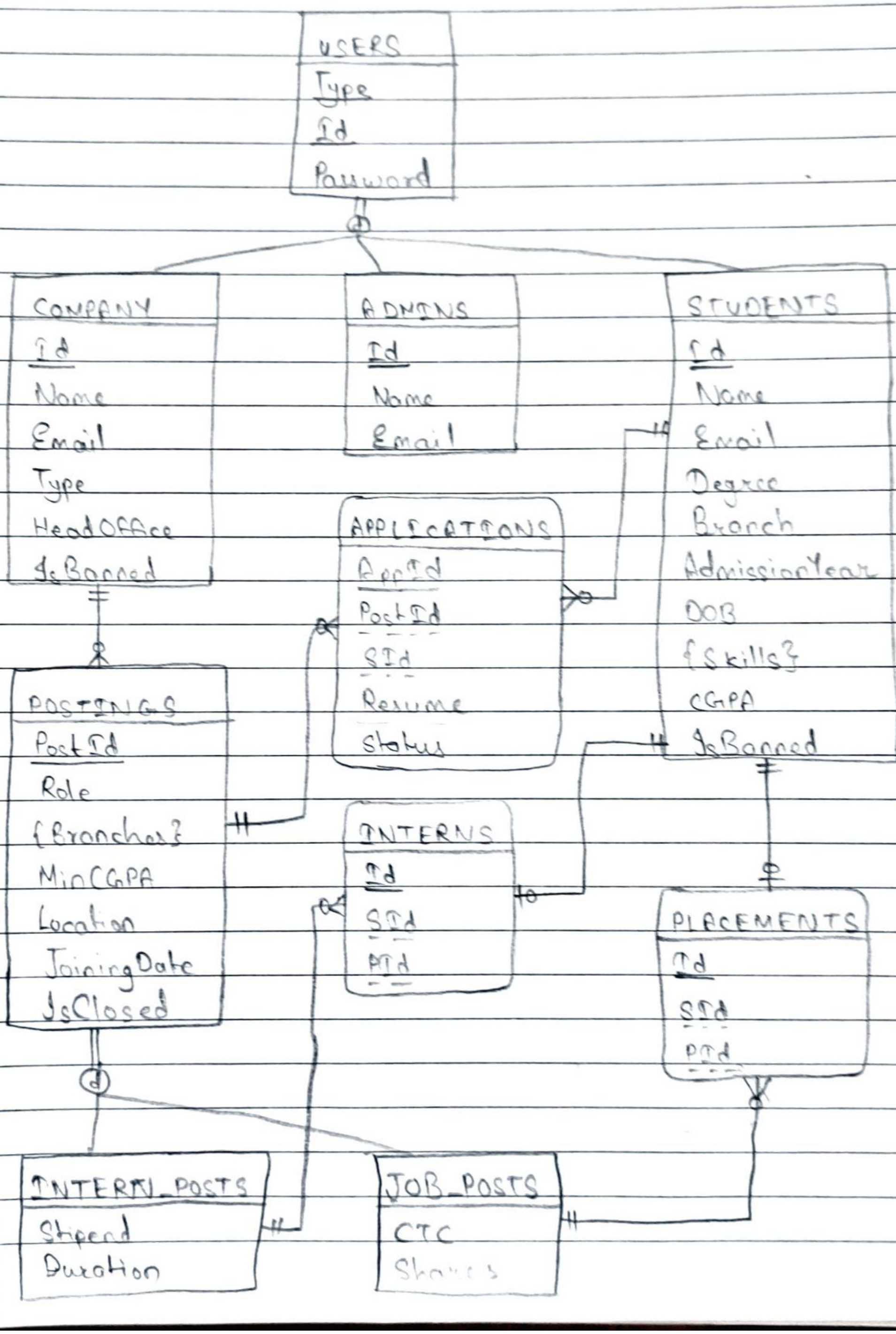
DFD level - 1



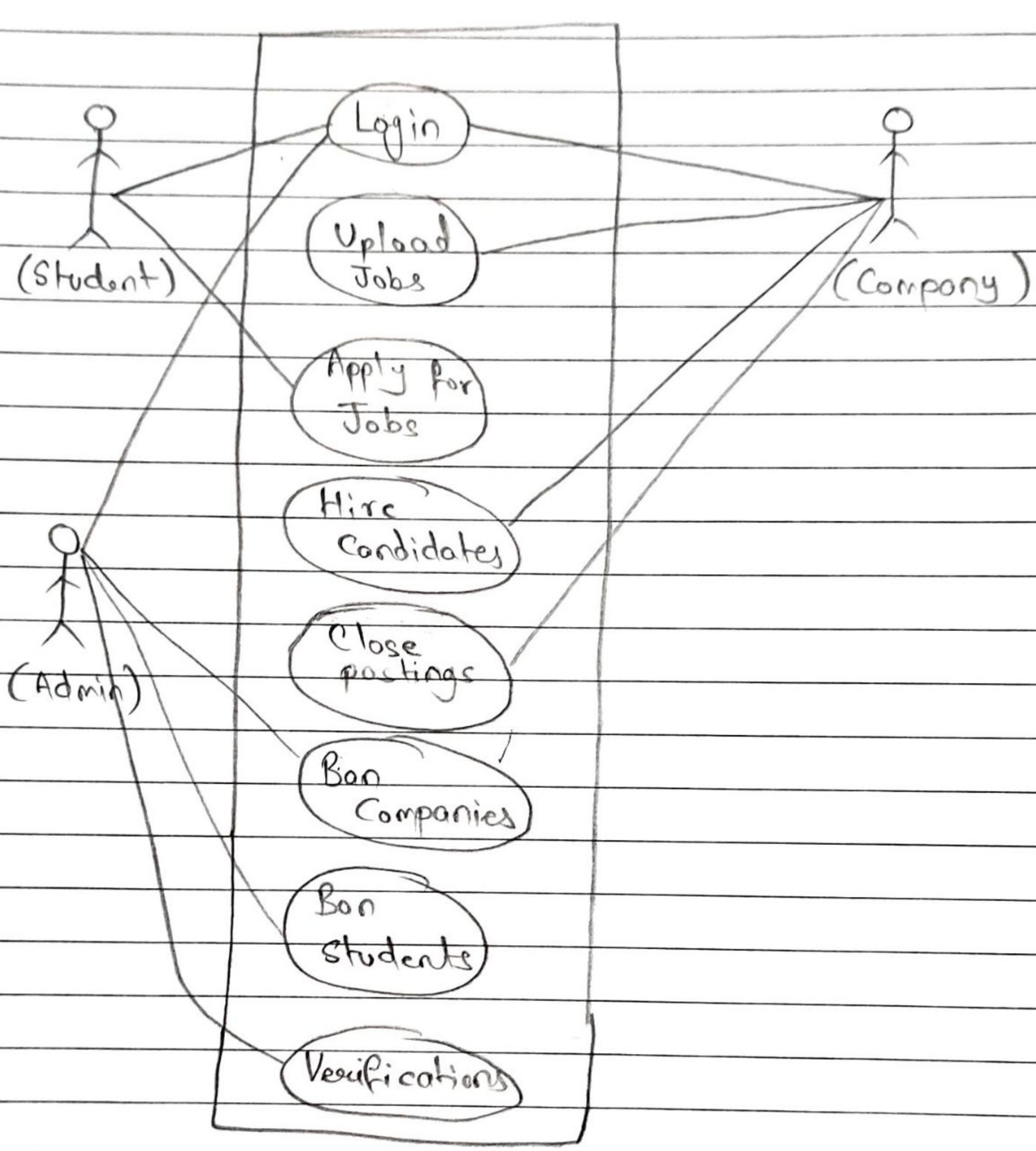
DFD Level - 2



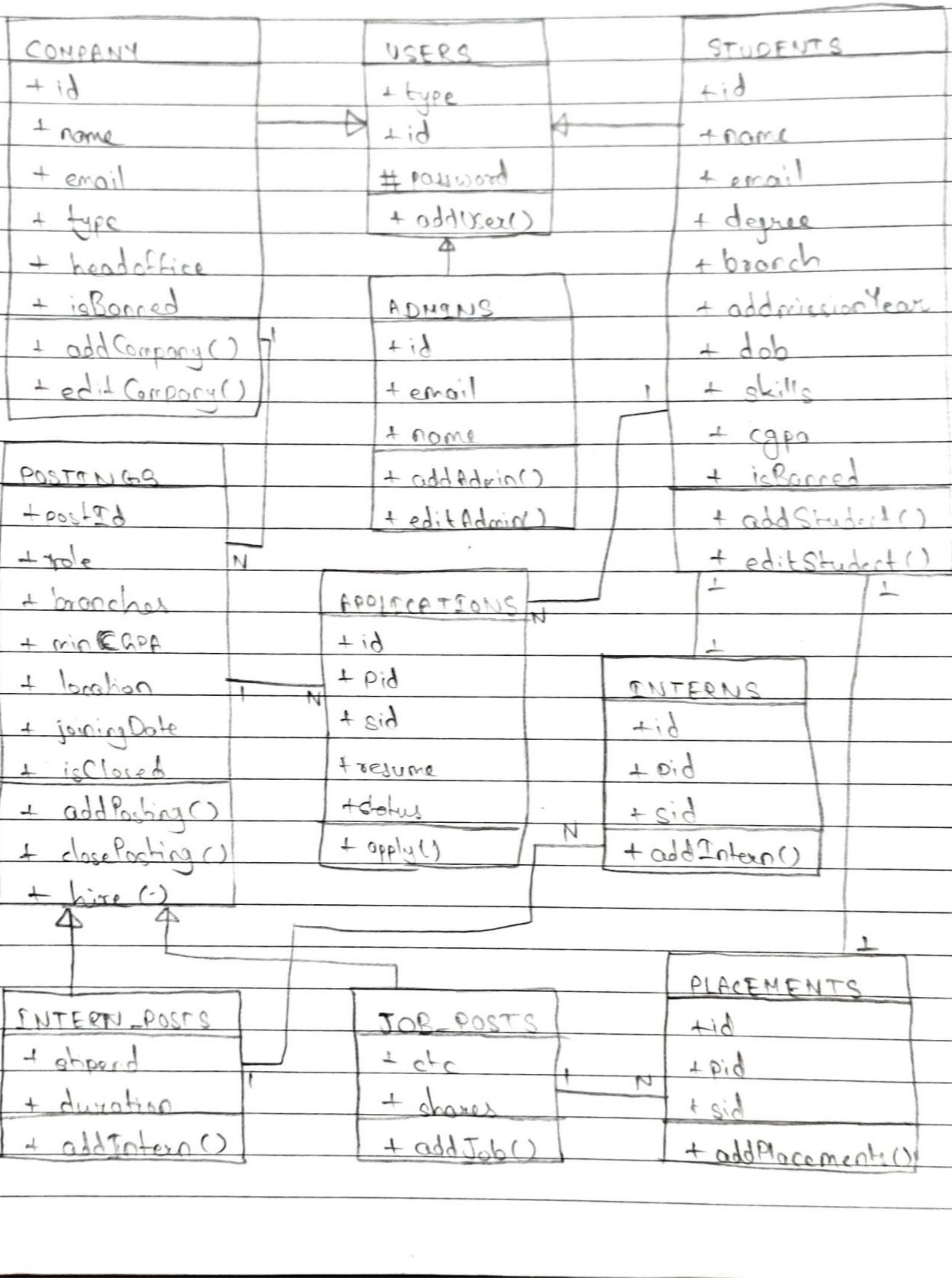
ER Diagram



Usecase Diagram



Class Diagram



Data Dictionary

① COMPANY

Id = {Integer}*
Name = First name + (middle name) + last name
Email = {character}*
Type = {character}*
HeadOffice = {character}*
IsBanned = True | False

② ADMINS

Id = {Integer}*
Name = First name + (middle name) + last name
Email = {character}*

③ STUDENTS

Id = {Integer}*
Name = First name + (middle name) + last name
Email = {character}*
Degree = {character}*
Branch = {character}*
GraduationYear = {Integer}^4
DOB = dd/mm/yyyy
Skills = {character}*
CGPA = {Float}
IsBanned = True | False

(4) POSTINGS

PostId = {Integer}*
Role = {Character}*
Branch = {Character}*
MinCGPA = {Float}*
Location = {Character}*
JoiningDate = dd/mm/yyyy
IsClosed = True | False

(5) Intern-Posts

Stipend = {Integer} KPM
Duration = {~~character~~ Integer} mos

(6) Job_Posts

CTC = {Integer} LPA
Shares = {Integer} %

(7) Applications

AppId = {Integer}*
PostId = {Integer}*
SId = {Integer}*
Resume = {character}*
Status = Applied | Accepted | Rejected | Closed | Expired

Algorithms

① Stats

for each branch
find total & placed students in the given graduation year ;
find average , highest stipend & placement ratio ;
return formatted data

② Apply to Posting

for given postid & studentid
if studentid & postid present in Applications
reject request
else if studentid present in Interns or Placements
reject request
else
apply to post

③ Create Post

for given companyid
if companyid is not in Company
return request
else if isBanned = true for companyid
return request
else
create the post