Exercise -1

1)

Golden academy is a leading academy in the world. it conducts an award ceremony annually to honor achievements in the field of motion picture and television series.

Nominations for the award ceremony are selected by an expert panel of judges.

Judges first need to select award categories and then need to select suitable nominees for the selected Award categories.

Judges have the right to add, delete, and modify award categories and its nominees at any given time

Judges also need to select special awards which are selected by the panel of judges only.

.If there is any concern judges should contact admin.

After finalizing award categories and nominees judges need to handover the award categories and its nominees to admin.

Judges need to handover list of special awards winners to the admin as well.

In this system there are two types of voters as guest voters and member voters.

Guest voters are eligible to vote under popular category only. One must register to the system before voting.

Member voters are already registered in the system and they need to log in to the system by entering their member id and password.

Guest voters can browse the “Popular” award category and cast their vote.

Only Member voters can browse the “Best” category and cast their vote. Member voters are also eligible to vote in “Popular” category as well.

If there are any errors or issues during the voting process voters can report or suggest to admin about them.

After casting vote voters can also reach to public comment section and post their opinion regarding the process and also can view and reply to others opinions as well.

Admin needs to display the voting instructions and rules and regulations to the voter before they vote.

Admin needs to have the facilities of the add / update/ modify members or their information such as name, address, email or phone number.

Admin needs to Calculate the votes separately as normal votes and member votes and create results report. Report needs to have analysis like nominations that got highest votes, least votes and names of judges etc.

Admin Needs to display results as award and next to that the winner as well as the number of votes they got, the results of the special award winners who decided by the judges.

2)

Nominations for the award ceremony are selected by an expert panel of judges.

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Judges have the right to add, delete, and modify award categories and its nominees at any given time

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Noun-Verb Analysis

Nouns

Nominations-Class

Award ceremony-Out of scope

Judges-Class

Award -Class

Special awards -Attribute

Admin-Class

Voters – Class

Guest voters – Class

Member voters – Class

Vote – Attribute

Member ID – Attribute

Password – Attribute

Popular category – Attribute

Best category – Attribute

Public comment section – Class

Golden online voting system – Out of scope

Name - Attribute

Address - Attribute

Email - Attribute

Phone number - Attribute

Report – Class

Verbs

Select nominations

Select award categories

Add/delete/modify award categories

Add/delete/modify nominations

Select special awards

Handover award categories and nominations.

Log in

Register

Cast vote

Contact admin

Add comment

Display voting instructions and rules

Add members

Update members

Modify members

Calculate votes

Create results report

Display results

3) CLASSES

1) Voters

2) Member Voters

3) Guest Voters

4) Judges

5) Nominations

6) Awards

7) Public Comment Section

8) Admin

9) Report

Exercise-2 CRC CARDS

Class Name: Judge	
Responsibilities:	**Collaborations:**
Select Nominations.	Nominations
Select award categories.	Awards
Select special awards.	Awards
Handover award categories and nominations.	Admin

Class Name: Nominations	
Responsibilities:	**Collaborations:**
View Nominations.	Judge
Add/delete/Modify Nominations.	Admin

Class Name: public comment section	
Responsibilities:	**Collaborations:**
Add comment	Admin

Class Name: Voters	
Responsibilities:	**Collaborations:**
1.View award categories and nominations.	Guest voters
2.Casting vote.	Member voters
3.View results.	Admin
4.Contact admin if there are any issues or errors.	

Class Name: Guest Voters	
Responsibilities:	**Collaborations:**
1.Register for the online voting system.	Voters
2.View award categories and nominations under "Popular" category.	Admin
3.Casting vote.	Awards
	Nominations

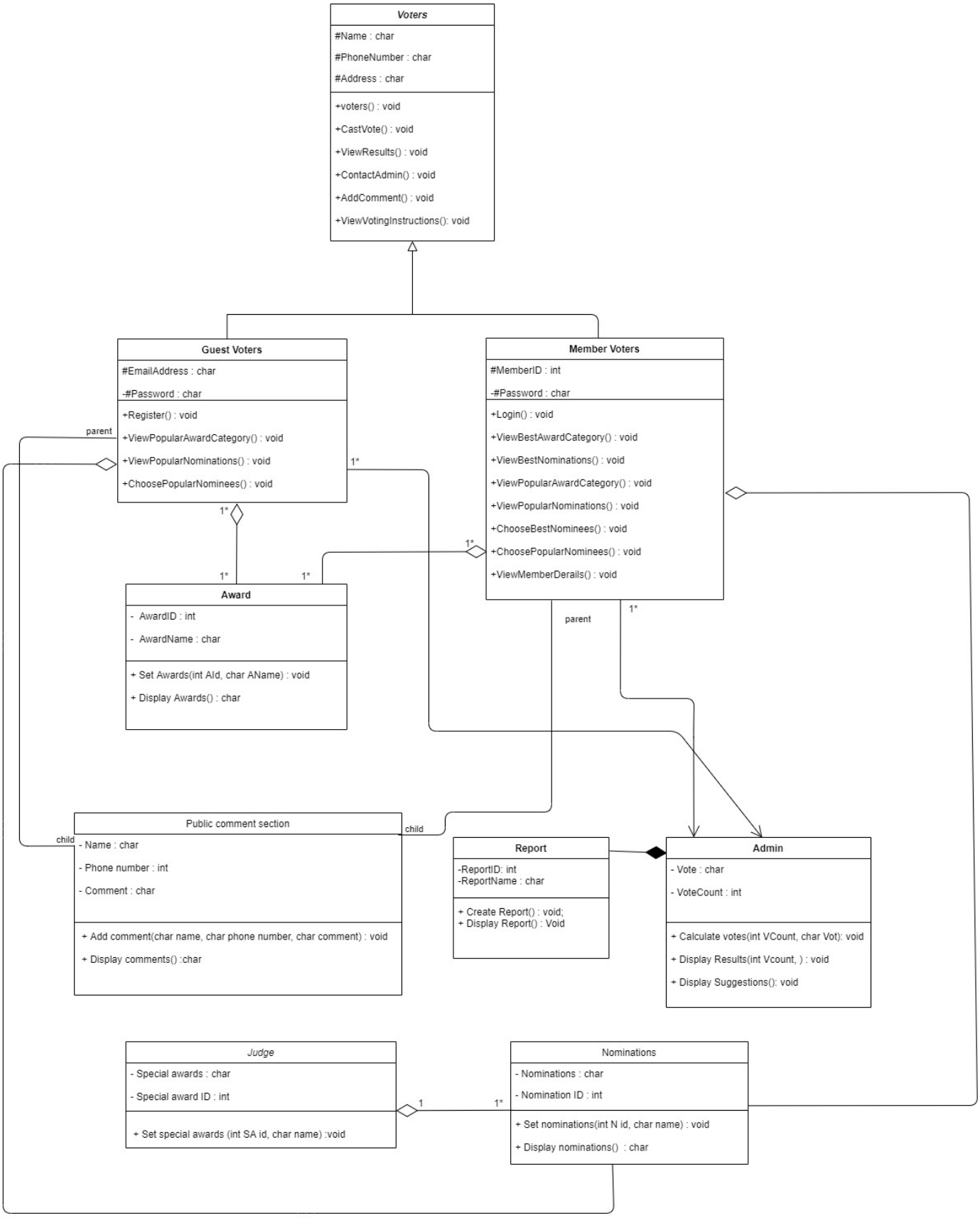
Class Name: Member Voters	
Responsibilities:	**Collaborations:**
1.Log in to the online voting system using the member ID and password.	Voters
2. View award categories and nominations under "Best" category.	Awards
3.View award categories and nominations under "Popular" category.	Admin
4.Casting vote.	Nominations

Class Name: Report	
Responsibilities:	**Collaborations:**
Create report	
Display report	

Class Name: Admin	
Responsibilities:	**Collaborations:**
Calculate Votes	Vote
Update or add members	Member
Display results	
Debug errors in voting	Voters
Modify or Update Awards	Awards

Class Name: Award	
Responsibilities:	**Collaborations:**
Display award category	Judge
Add/delete/modify Awards	Admin

EXERCISE- 3 CLASS DIAGRAM



Exercise 4

```
class Award{

private:
	int AwardID;
	char AwardName[20];

public:
	Award();
	Award(int AId, char AName);
	void SetAwards(int AId, char AName);
	char DisplayAwards();
	~Award();

};

class Admin {
private:
	int VoteCount;
	char Vote[20];
	Guest_Voters* Gv1;
	Member_Votes* Mv1;
	Report* rep;

public:
	Admin();
	Admin(int VoteCount, char Vote);
	void CalculateVotes(int VCount, char Vot, Guest_Voters* Gv1,
Member_Votes* Mv1);
	void DisplayResults(int Vcount, char Vot);
	void DisplaySuggestions();
	~Admin();
};

class Report {
private:
	int ReportID;
	char ReportName[20];

public:
	Report();
	Report(int ReportID, char ReportName);
	void CreateReport();
	void DisplayReport();
	~Report();
};

class Judge{
```

```
private:
 Nominations * nomi1;
  char specialawards[20];
  int specialawardID;

public:

  Judge();
  Judge(int SaID(), char SaName[]);
  void setspecialawards(int SaID(), char SaName[]);
  char displayspecialawards();
  ~Judge();
};

class Nominations{

private:

  char Nominations[20];
  int NominationID;

public:

  Nominations();
  Nominations(int NID[], char Nname[]);
  void setNominations(int NID[], char Nname[]);
  char displayNominations();
  ~Nominations();
};


class Publiccommentsection{

private:
  Guest_Voters* Gv1;
  Member_Votes* Mv1;
  char Name[20];
  char Comment[50];
  int Phonenumber;

public:

  Publiccommentsection();
  Publiccommentsection(char name[],char commen[]t,int pnum[]);
```

```
  void addcomment(char name[],char comment[],int pnum[]);
      ~Publiccommentsection();


};

class voters{

protected:

      char Name[20];
      int PhoneNumber;
      char Address[30];

public:

      voters();
      voters(char pname[],int pno[],char paddress[]);
      void CastVote();
      void ViewResults();
      void ContactAdmin();
      void AddComment();
      void ViewVotingInstructions();
      ~voters();
};



class GuestVoters : public voters{

protected:
      Award * A1;
      Nominations * nomi1;
      char emailAddress[20];
      char Password[20];

public :

      void Register();
      void ViewPopularAwardCategory();
      void ViewPopularNominations();
      void ChoosePopularNominees();

};
```

```
class MemberVoters : public voters{

protected :
	Award * A1
	Nominations * nomi1;
	int MemberID;
	char Password[20];

public :

void Login();
void ViewBestAwardCategory();
void ViewBestNominations();
void ViewPopularAwardCategory();
void ViewPopularNominations();
void ChooseBestNominees();
void ChoosePopularNominees();
void ViewMemberDerails();

};

Award::Award() {
	AwardID = 0;
	AwardName = "NULL";
}
Award::Award(int AId, char AName) {
	AwardID = AId;
	AwardName = AName;
}
void Award::SetAwards(int AId, char AName) {

}
char Award::DisplayAwards() {

}
Award::~Award() {

}


Admin::Admin() {
	VoteCount = 0;
	Vote = "NULL";
	rep = new CreateReport(101);
}
Admin::Admin(int VCount, char Vot) {
	VoteCount = VCount;
	Vote = Vot;
```

```
}
void Admin::CalculateVotes(int VCount, char Vot, Guest_Voters* Gv1,
Member_Votes* Mv1) {

}
void Admin::DisplayResults(int Vcount, char Vot) {

}
void Admin::DisplaySuggestions() {

}
Admin::~Admin() {

}


Report::Report() {
	ReportID = 0;
	ReportName = "NULL";
}
Report::Report(int RID, char RName) {
	ReportID = RID;
	ReportName = RName;
}
void CreateReport() {

}
void DisplayReport() {

}

Report::~Report() {

}

Judge::Judge(){
	specialawardID = 0;
	specialawards = “NULL”;
}
Judge::Judge(int SaID(), char SaName[]){
	specialawardID =SaID;
	specialawards = SaName;
}
void Judge::setspecialawards(int SaID(), char SaName[]){

}
char Judge::displayspecialawards(){
```

```
}
Judge::~Judge(){

}


Nominations::Nominations(){
	NominationID = 0;
	Nominations = “NULL”;
}
Nominations::Nominations(int NID[], char Nname[]){
	NominationID = NID;
	Nominations = Nname;
}
void Nominations::setNominations(int NID[], char Nname[]){

}
char Nominations::displayNominations(){

}
Nominations::~Nominations(){

}


Publiccommentsection::Publiccommentsection(){
	Name = “NULL”;
	Comment = “NULL”;
	Phonenumber = 0;
}
Publiccommentsection::Publiccommentsection(char name[],char commen[]t,int
pnum[]){
Name = name;
Comment = commen;
Phonenumber = pnum;
}
  void addcomment(char name[],char comment[],int pnum[]){

}
Publiccommentsection::~Publiccommentsection(){

}

voters::voters(){
	Name = “NULL”;
```

```
	PhoneNumber = 0;
	Address = “NULL”;
}
voters::voters(char pname[],int pno[],char paddress[]){
	Name = “NULL”;
	PhoneNumber = 0;
	Address = “NULL”;
}
void voters::CastVote(){

}
void voters::ViewResults(){

}
void voters::ContactAdmin(){

}
void voters::AddComment(){

}
void voters::ViewVotingInstructions(){

}
voters::~voters(){

}

void Register(){

}
void ViewPopularAwardCategory(){

}
void ViewPopularNominations(){

}
void ChoosePopularNominees(){

}

void Login(){

}
void ViewBestAwardCategory(){
```

```
}
void ViewBestNominations(){

}
void ViewPopularAwardCategory(){

}
void ViewPopularNominations(){

}
void ChooseBestNominees(){

}
void ChoosePopularNominees(){

}
void ViewMemberDerails(){

}

int main(){

  Award awd1;
  Admin ad1;
  Report repo1;
  Nominations no1;
  Publiccommentsection pcs1;
  Judge j1;
  voters v1;
  GuestVoters guest1;
  MemberVoters member1;

  return 0;

}
```