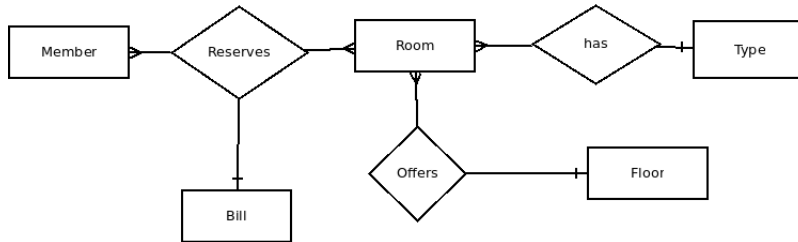


**Time allowed:** 90 mins

**Marks:** 40

**Note:** Attempt all questions. Be brief and to the point.

**Q No 1:** Consider the following ERD diagram and answer the questions below



- (a) Implement the given above ERD into the ruby on rails.
- (b) Give the appropriate associations for each model.

**Q No 2:** Solve the following (Attempt any **two**)

- (a) Write the steps to add the project into the heroku.
- (b) Write steps to use the bcrypt gem to validate the password. Use the rails console to validate the password.
- (c) Write a loop to check all the error messages in the rails console.

**Q No 3:** Attempt any **two** of the following

- (a) Create and run a migration to add a column address into user table and remove a column dob from the student table.
- (b) Write steps to show the logged in the header of the page.
- (c) Write steps to stop user not to access **the sign up page** when user is already logged in.

**Q No 4:** Attempt any **two** of the following

1. Write steps to stop the user not to **delete** or **edit** the record.
2. How do we know the logged in user is admin or normal user. Write steps.
3. How do you share your project with your friend over the bitbucket.