Question 1:

a. **Ruby on Rails** would be my preferred backend framework.

Considering *boats.com* is a startup where time to market plays a major role, agility is the key.

Although Django is a popular choice, when it comes to speed, RoR is 0.7 times faster than Django.

RoR also offers perfect balance between flexibility and scalability which is crucial for startups.

Major advantage of Ruby on rails is that it is based on the MVC (Model View Controller) architecture.

b. **React JS** is the preferred frontend framework. As it is easy to learn and use. It also has a large community of users and the codebase will be easier to maintain because of reusable components.

c. **MYSQL** on AWS RDS as it is easy to use, scalable and has high performance, and can be stored redundantly across multiple zones and easily backed up.

d. **Git** can be used for version control of the codebase. GitHub can be used for hosting the code in a centralized repository.

e. **Aws S3 (**Simple storage service) is ideal for object storage and can be used to store media files and allows fast access to it.

f. The application can be deployed on the **cloud** on AWS **EC2** instances as they can be auto scaled and load balanced based on demand.

g. **Apache HTTP** server as it is easy to configure and it is open source. And as it is cross-platform and runs well on windows and Linux operating systems.