**Answer Questions With Explanation**

# Theory Questions And Answers:

1. What is meant by the REST API?
2. What is a SOAP service?
3. What is a relational database?
4. What is a NoSQL database?
5. What is an ORM? Give at least one example.
6. What is SQL Injection?
7. What is 2-factor authentication? Briefly describe an example.
8. Briefly describe a secure method for saving user passwords on the DB.
9. What is a Sticky Session in a Load Balanced System?

# Practice Questions And Answers:

1. Write a query that extracts the number of people under the age of 30 and earning more than $ 50,000 a year

**Query Command:**

**select** *\** **from** records **where age**<30 **and over\_50k**=**true**

1. Write a query that reports the average capital gain for each occupation category:

**Query Command:**

**select** main.occupations.**id**, main.occupations.**name**, (**select** *AVG*(main.records.**capital\_gain**) **from** records **where** records.**occupation\_id** = main.occupations.**id**) **AS** AverageCapitalGain **from** occupations

1. The system was built up with link lo