

# Lab1

Use MySql and PHP on Linux or Windows

- Install PHP7.0, Apache2, Mariadb (or Mysql 5)
- Try the tutorial
- <https://www.howtoforge.com/tutorial/install-apache-with-php-and-mysql-on-ubuntu-16-04-lamp/>
- If you have already got PHP and Mysql installed, then do not change the installation.

# Example Database

## Sailors

| sid | sname | rating | age |
|-----|-------|--------|-----|
| 1   | Fred  | 7      | 22  |
| 2   | Jim   | 2      | 39  |
| 3   | Nancy | 8      | 27  |

## Boats

| bid | bname       | color |
|-----|-------------|-------|
| 101 | Nina        | red   |
| 102 | Pinta       | blue  |
| 103 | Santa Maria | red   |

## Reserves

| sid | bid | day       |
|-----|-----|-----------|
| 1   | 102 | 9/12/2015 |
| 2   | 102 | 9/13/2015 |

# Try it Yourself

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```
CREATE TABLE Sailors (sid INTEGER,  
  sname CHAR(20),  
  rating INTEGER,  
  age REAL,  
  PRIMARY KEY (sid));
```

```
CREATE TABLE Boats (  
  bid INTEGER,  
  bname CHAR (20),  
  color CHAR(10),  
  PRIMARY KEY (bid));
```

```
CREATE TABLE Reserves (  
  sid INTEGER, bid INTEGER,  
  day DATE,  
  PRIMARY KEY (sid, bid, day),  
  FOREIGN KEY (sid) REFERENCES Sailors,  
  FOREIGN KEY (bid) REFERENCES Boats);
```

```
INSERT INTO Sailors VALUES  
  (1, 'Fred', 7, 22),  
  (2, 'Jim', 2, 39),  
  (3, 'Nancy', 8, 27);
```

```
INSERT INTO Boats VALUES  
  (101, 'Nina', 'red'),  
  (102, 'Pinta', 'blue'),  
  (103, 'Santa Maria', 'red');
```

```
INSERT INTO Reserves VALUES  
  (1, 102, '2016-08-30'),  
  (2, 102, '2016-08-31');
```

# Implement these queries

- Find all 27-year-old sailors
- Find the names and ages of all sailors
- Find all sailors with a rating  $> 7$
- Find the names of sailors who have reserved boat no X, where X is a valid boat number input from the screen.
- Find the sids of all sailors who have reserved a C boat where C is a valid colour, input from the screen.