Thamani V Mathamba 201502792

University of Botswana

Department of Computer Science

Test 1 - 2019

57 8/10

Course No: **CSI345** Duration: **2 Hours** Date: **March 2019**

Title of Paper: **Integrative Programming** Time: **PM**

Subject: **Computer Science** Title of Test: **BSc**

Instructions:

- No calculating device of any kind is allowed in the test room.
- Answer **ALL** the three (3) questions. Show your work.
- Answers **MUST** be written in the answer book provided.
- READ QUESTIONS CAREFULLY.
- Marks for each subquestion are indicated in square brackets at the end of the subquestion.
- Use your time wisely.
- The test has a total of 75 marks
- This question paper has **3** pages, including the cover page.

13.5 + 15 + 14.5 = 43/75

DO NOT OPEN THIS TEST PAPER UNTIL YOU ARE TOLD TO DO SO BY THE INVIGILATOR.

ion 1 - JSON and XML [25 points]

Discuss any three (3) advantages of JSON over XML. [6]

Represent the data in the table 1 below using JSON. [5]

Represent the data in the table 1 below using XML. [5]

What is application integration? Use an example to illustrate. [5]

. Discuss any two challenges of application integration. [4]

Table 1: Info on Cars

Make	Models	engines
Toyota	Hilux	2.0, 2.5, 3.0
Toyota	Corolla	1.3, 1.6, 2.0
Mazda	Drifter	2.2, 2.4, 2.6
Mazda	Mazda6	1.6, 2.0, 2.5

Question 2 - Database Fundamentals [25 points]

Consider the partial database schema for a shop database below and answer questions that follow

customers(customeid, firstname, surname) - primary key customerid
products(productid, name, description, price) - primary key productid
sale(customerid, productid, date) - primary key (customerid, productid)

Assume you have logged into your machine using *ssh*. The machine has *MySQL* installed with *root MySQL* user whose password is *qwe1234*.

a. Give the command(s) you will use to start up the MySQL shell. [2]

b. Assuming you are on the MySQL shell, give the SQL command you will use to create a database called shop. [2]

c. Assuming you just created a database called shop, provide the sequence of commands you will use to create the tables shown in the schema above, including quitting the MySQL shell. [6]

d. Provide the command to create a backup for above database (backup to shopbk.sql). [4]

e. Assuming your database becomes corrupt after backing up, provide commands to delete the corrupt database and then restore the database from backup. [3]

f. Provide SQL commands to: a). create a user called "tomdb". b). Grant user tomdb the following privileges (select, create, delete) on database shop only on table customers. [4]

g. Provide SQL commands to a). revoke delete privileges on user tomdb on the database shop only on table customer. b) Delete user tomdb. [4]

tion 3 - REST API [25 points]

1. Describe the 4 REST operations performed on resources. [4]
2. Using an example to illustrate, clearly describe how a REST API can achieve application integration. [3]
3. Assume you have a REST API with the following in its help file:
   - For All farmers: `https://farms.co.bw/api/v2/farmers.`
   - For a single farmer: `https://farms.co.bw/api/v2/farmer/id/{id}`
   - To create farmer: `https://farms.co.bw/api/v2/farmer/add`
   - To update farmer: `https//farms.co.bw/api/v2/farmer/update/{id}`
   - To delete a farmer: `https://farms.co.bw/api/v2/farmer/delete/{id}`
   - Each farmer has an *id*, firstname, surname and location.
4. Assuming we are using httpie, provide the command line to retrieve all farmers at the API. [2]
5. Assuming we are using httpie, provide the command line to create a farmer at the API. [2]
6. API request might not provide response due to errors. Discuss any two types of API errors together with their status code. [4]
7. Consider the following JSON object:

```
{"farmer": {
  "id": "3",
  "firstname": "Tim",
   "surname": "Moore",
   "location": "Ghantsi"
   "products": {"animals": "Goats", "fruits": "Oranges", "vegetables":
       "tomatoes"}
}}
```

   a. What is parsing a JSON object? Provide a JavaScript code segment to parse the above JSON object. [4]

   b. Provide a code segment to display the above JSON object in a browser. [6]

13.5

Q1) a) Json is light in weight which means it has less Storage and it is fast in transmission as Compared to Xml which consumes large memory for Storage.

* Json has arrays where as Xml has no arrays this means that large objects can be grouped together and stored as arrays.

* Json can be supported in mobile devices as it does not Consume large memory and it is easy to use as it is human readable and platform-independence.

b) Car

```
{ "make": ["Toyota", "Mazda"],
  "model": [ Hilux, Corolla, Drifter, Mazda6 ],
  "engines": { "Hilux": [ 2.0, 2.5, 3.0 ] }, { "Corolla": [1.3, 1.6, 2.0 ] },
             { "Drifter": [ 2.2, 2.4, 2.6 ] } { "Mazda6": [1.6, 2.0, 2.5] }
}
```

[{ "make": "Toyota", model: mazda, Engine[ ] }

So we can find Toyota Drifter 2.6

c)

```
<Cars>
<Car>
<make> Toyota </make>
<models>
<model> Corolla </model>
<model> Hilux </models>
</models>
<engines>
<engine> 2.0, 2.5, 3.0 </egine>
<engine> 1.3, 1.6, 2.0 </engine>
</engines>
</car>
```

<Car>
<make> mazda </make>
<models>
<model> Drifter </model>
<model> Mazda6 </model>
</models>
<engines>
<engine> 2.2, 2.4, 2.6 </engine>
<engine> 1.6, 2.0, 2.5 </engine>
</engines>
</car>
</cars>

d) Application Integration is where by one application can interact with one another. Is the process where one System can Communicate and Share data with another System. for example; if we consider that we have an Student results application which ~~can~~ shows the results of Students, by simple fetching a data of results from Asas, this shows that the two systems can communicate with each other.

e) * Inability to deal with ~~with~~ the deficiency of the integration Solution can lead to loss of revenue and loss of reputation.

* Technical issues → Maintenance and operation of the integration solution can be time consuming ~~and it may~~.

15

q2) a) mysql -u root -pqwe1234 (2)

b) ~~Create table~~ ~~CREATE TABLE~~
CREATE DATABASE Shop; ✓ (2)

mysql>
c) → CREATE TABLE Customer (customerid varchar(20), firstname varchar(20), Surname varchar(20) Constraint pk, Primary key(Customerid)); ✓ (2)

→ CREATE TABLE Products (productid varchar(20), name varchar(20), description varchar(220), price varchar(20), Constraint pk, Primary key (Productid)); ✓ (2)

→ CREATE TABLE Sale (customerid varchar(20), productid varchar(20) date date, ~~Constra~~ Primary key(Customerid, productid) Foreign key (Customerid) REFERENCES Customer (customerid), AND Foreign key (productid) REFERENCES product (productid)); (1.5)

mysql>> exit;

d) ~~mysqldump~~ tom db
mysqldump -u root -p tombdb@localhost/shop > Shopbk.sql (1)

```
mysql -u mat02742 -p mat02742 shop > Shopbk.sql
```

e) mysql> ~~Drop~~ DROP DATABASE Shop; ✓ (1)
create database shop;
mysql -u root -p @ localhost 'To' Shopbk.sql < Shopbkl.sql

mysql -u mat02742 -p mat02742 shop < Shopbkl.sql

f) a) CREATE USER "tombd" (1) @localhost identified by.

b) GRANT USER 'tambd' (Select, Create, Delete) ON DATABASE SHOP, TABLE Customers, (0.5)

g) ~~A) Revoke Delete on Shop Table Customers~~

a) REVOKE DELETE ON 'tombd' (1) DATABASE SHOP, TABLE Customers

b) DROP USER tombd; ✓ (1)

Q3) 1) CREATE - Post or resources
READ - data from files
UPDATE - Put the data on the database
DELETE - the data from the database.

2) REST API (Representation State Protocol) → It can achieve the application integration through sharing of the data. It represent the resources in a form format It is also stateless as it does not store the information about the client. for example it can upload the information through the browser where users can look for information in the internet. Example

3)

4) https: Get https://farms.co.bw/api/v2/farmers/all

5) httpie POST https://farms.co.bw/api/v2/farmers add name="Hea, Surname="mathambo", id? firstname?

6) Status Code 400 ⇒ This means that during the request has errors, or incorrect request.

Status Code 500 ⇒ Means that the server encountered problems.

7) a) Parsing a Json object means converting the json object to other languages or format such as javascript.

```
String farm = farmer;
try {
    ~~farmer farm. Json~~
    Json.parse(farm)
}
```

b)

Question 1 [25 points]

a. Some of the components of a WSDL are: Interface and Binding. Discuss each of these components. [6]

b. Describe any two roles of the service registry in service oriented architectures. [4]

c. Compare binding operation and publish operation in service oriented architectures. [5]

d. Assume we have a PHP method defined as shown below in a SOAP based web service.

```
function compareProducts($productid1, $productid2){
        ...
        ...
        $compare = ...;
        return $compare;
}
```

i. Provide an XML structure of a SOAP request sent from a client to this web service to invoke the method compareProducts. [5]

ii. Provide and XML structure of a SOAP response from sent the web service to a client in response to request made in *i*. above. Assume no errors occurred during the processing of the request. [5]

Question 2 [25 points]

a. Consider an HTTP basic authentication for a REST API with *base*64 encoding. Describe *base*64 encoding. [3]

b. For your group project, one team implemented HTTP basic authentication for the REST API over HTTP. What advice can you give them and why? [2]

c. Describe a SOAP based web service focusing on its main components. [6]

d. Using PHP provide a code segment within a REST API to delete a product with productid of *ttp*001 in a table called products. Use PDO. You can assume connection to the database has already been made. [6]

e. Discuss the purpose of WSDL in SOAP based web services. [5]

f. In your Lab 6, you used the PHP statement below when creating a SOAP client to your SOAP web service. Explain what the statement does. You used the NuSOAP library.

```
$client=new nusoap_client('http://domain/sptest/soapws.php?wsdl',true);
```

[3]

Question 1 [25 Marks]

a. MySQL Database user **root** has password **qwe12345**. Provide the command to issue at the command line to login to MySQL. [2]

b. Assume command at *a)* above was successful, provide a command user **root** will issue to create a new user **dbuser**, with password **qwe456**. [2]

c. Assume command at *a)* above was successful, provide a command user **root** will issue to create a database called **testdb**. [2]

d. Assume command at *c)* above was successful, provide a command user **root** will issue to grant user **dbuser** above all priviledges on all tables in the database **testdb**. [3]

e. Consider the database schema shown below:
customer(customerid, fullnames, dob)
branch(branchcode, branchname, location)
account(accountnum, branchcode, customerid)

i. Assuming **root** has logged out and database user **dbuser** has started MySQL shell, provide command(s) to display all fullnames of customers with an account at a branch that starts with G. Your query should use REGEXP. [3]

ii. Provide SQL command(s) to delete all customer whose customerid has **r** as the second character. Your query must use LIKE. [2]

f. Provide command to add an extra column after accountnum called **accounttype** to the **account** table above. Assume MySQL shell has been started. [4]

g. Provide command(s) to create an SQL dump of the database **testdb**. [3]

h. Assuming the database **testdb** has been dropped, issue commands to restore the database **testdb** from the SQL dump. [4]

Alter table account

ADD colum Accounttype varchar(50);

Question 2 [25 Marks]

a. You are to create a REST API to allow other applications to access the database **testdb** whose schema is shown in question 1 *e*) above.

   i. Design *URI's* for: obtaining all customers; creating a branch; updating an account. Assume you are working within a server with domain: *https : //testbank.co.bw.* **[3]**

   ii. Using the *URI's* you designed in *i*) above, provide the command line to retrieve all customers at the API. Assume you are using *httpie*. **[3]**

   iii. Using the *URI's* you designed in *i*) above, provide the command line to create a new branch at the API (branchcode: *br*001*k*, branchname: Mall, location: Gabs). Assume you are using *httpie*. **[3]**

b. Discuss any two methods for securing a REST API. Focus on discribing the method and any drawbacks it might have. **[6]**

c. Implement a PHP function create, to create a customer resource and insert into the **customer** table. Provide a PHP function to connect to the database. You can use the credentials provided in question 1 above. Your two functions should use PDO. **[6]**

d. Discuss each of the four CRUD REST operations and for each state the corresponding HTTP operation. **[4]**

Question 3 [25 Marks]

a. In the context of application integration, define the term Service Oriented Architecture (SOA). [4]

b. Describe any two benefits of having a header in a message. [4]

c. One of the benefits of SOA is maintainability. Describe maintainability. [3]

d. Describe a SOAP web service [2]

e. List any two components of a SOAP request that are not in a SOAP response. [2]

f. Provide the structure of a SOAP message in XML format. [5]

g. Discuss each of the components of a SOAP message. [5]

SOAP HEADER

" ENVELOPE

BODY

FAULT

HEADER = opening tags

```
<? XML version="1.0" encoding="UTF-8" >
    <S: HEADER />
    <S: ENVELOP >
        <Body >
            Calculate GDP ( VAR A, VAR B );
                GDP = VAR A / VAR B *100
            return GDP
        </Body
    </S: Envelope >
</? xml >
```

Question 4 [25 Marks]

a. Consider the information below about a gym and its members:

- A gym with name gym-sy located in Gaborone west. For now assume the gym has 3 members; Maria (firstname) Moses (surname), John (firstname) Smith (surname) and Arena (firstname) Martha (surname). Assume that's all the information we have about the gym.

i. Represent the information above about the gym in XML format. [5]

ii. Represent the information above about the gym in JSON format. [5]

iii. Using your solutions to *i.* and *ii* above, discribe any two benefits of JSON over XML. [4]

b. Consider applications integrated through the use of a shared database. Discuss any two problems of this approach. [4]

c. Provide a JavaScript function to take the JSON data below in Figure 1, formats it with HTML tags, and outputs it to an HTML document.

```
var data =
  {
    "authors" : [
      {
        "authorname" : "Michael Spin",
        "dob" : "1968",
        "books" : [
          {
            "booktitle" : "Wizzards",
            "year" : "2014"
          },
          {
            "booktitle" : "Mistery",
            "year" : "2019",
          }
        ]
      }
    ]
  }
```

Figure 1: Book Authors.

[5]

d. In JavaScript, what does JSON.stringify() function do? [2]

University of Botswana

Department of Computer Science

Test 1 - 2020

Course No: **CSI345** Duration: **2 Hours** Date: **March 2020**

Title of Paper: **Integrative Programming** Time: **PM**

Subject: **Computer Science** Title of Test: **BSc**

Instructions:

- No calculating device of any kind is allowed in the test room.
- Answer **ALL** the three (3) questions. Show your work.
- Answers **MUST** be written in the answer book provided.
- READ QUESTIONS CAREFULLY.
- Marks for each subquestion are indicated in square brackets at the end of the subquestion.
- Use your time wisely.
- The test has a total of 75 marks
- This question paper has **3** pages, including the cover page.

DO NOT OPEN THIS TEST PAPER UNTIL YOU ARE TOLD TO DO SO BY THE INVIGILATOR.

Question 1 [25 points]

Consider the data shown in the table below. The data is not factual, but rather used just for this test.

Table 1: Information on Health conditions

Health Condition	Some Drugs - medicine	Natural remedies	Symptoms
Flu	Benadryl, Chlorpheniramine	Echinacea	Running noose, Cough, Fever
Pain	Paracetamol, ibuprofen	Whiskey	Feeling some Pain
Diarrhea	loperamide, Anti-Diarrheal	Green tea	Frequent loose watery stools
Hypertension	lisinopril, hydrochlorothiazide	Black haw	Blood Pressure is above normal
Acne	doxycycline, minocycline	Tea Tree Antiseptic	Skin Rush

a. Provide an accurate conversion of this table to XML and provide the XML representation. [7]

b. Provide an accurate conversion of this table to JSON and provide the JSON representation. [7]

c. Provide a database that could be used to hold the data. Indicate Primary keys and Foreign key constraints if any. [3]

c. Provide SQL insert statements to insert the data into the table into your database. [4]

b. Consider the statement: JSON is better than XML. Argue for and against this statement. [4]

Question 2 [25 points]

You have a database called *students* created using MySQL user root whose password is: *CSIt3st1@2020.* Assume you successfully logged into a host machine with your docker containers. Your container for MySQL is named using your surname.

a. Provide a sequence of ALL the commands you will issue to create a MySQL user: *myuser* with password: *CSIt3st1@2020* [5]

b. Assuming you have created the user: *myuser*, give a sequence of commands you will issue to give this user ALL privileges on the database students. [5]

c. Provide a sequence of ALL commands your will use to create a backup of the database student. Call this file studentsbk.sql. [5]

d. Provide a sequence of ALL commands you will issue to send the file *studentsbk.sql* above from your machine to another machine with IP address *192.168.8.8.* On the remote machine they is a user called: *nick* with Password *nickhacker@2020.* The sent files should be stored in directory `/var/www/html/temp` in the remote machine. [5]

e. Assume you have created a script with the commands in c. and d. above. The script is called *mybackup* at folder: `/app` . Provide a crontab entry so that the script will run everyday at midnight. [5]

Src same nick@ 192 ? destination path

Question 1 [25 points]

Consider the data shown in the table below. The data is not factual, but rather used just for this test.

Table 1: Information on Health conditions

Health Condition	Some Drugs - medicine	Natural remedies	Symptoms
Flu	Benadryl, Chlorpheniramine	Echinacea	Running noose, Cough, Fever
Pain	Paracetamol, ibuprofen	Whiskey	Feeling some Pain
Diarrhea	loperamide, Anti-Diarrheal	Green tea	Frequent loose watery stools
Hypertension	lisinopril, hydrochlorothiazide	Black haw	Blood Pressure is above normal
Acne	doxycycline, minocycline	Tea Tree Antiseptic	Skin Rush

a. Provide an accurate conversion of this table to XML and provide the XML representation. **[7]**

b. Provide an accurate conversion of this table to JSON and provide the JSON representation. **[7]**

c. Provide a database that could be used to hold the data. Indicate Primary keys and Foreign key constraints if any. **[3]**

c. Provide SQL insert statements to insert the data into the table into your database. **[4]**

b. Consider the statement: JSON is better than XML. Argue for and against this statement. **[4]**

Question 2 [25 points]

You have a database called *students* created using MySQL user root whose password is: *CSIt3st1@2020*. Assume you successfully logged into a host machine with your docker containers. Your container for MySQL is named using your surname.

a. Provide a sequence of ALL the commands you will issue to create a MySQL user: *myuser* with password: *CSIt3st1@2020* **[5]**

b. Assuming you have created the user: *myuser*, give a sequence of commands you will issue to give this user ALL privileges on the database students. **[5]**

c. Provide a sequence of ALL commands your will use to create a backup of the database student. Call this file studentsbk.sql. **[5]**

d. Provide a sequence of ALL commands you will issue to send the file *studentsbk.sql* above from your machine to another machine with IP address *192.168.8.8*. On the remote machine they is a user called: *nick* with Password *nickhacker@2020*. The sent files should be stored in directory `/var/www/html/temp` in the remote machine. **[5]**

e. Assume you have created a script with the commands in c. and d. above. The script is called *mybackup* at folder: `/app` . Provide a crontab entry so that the script will run everyday at midnight. **[5]**

scp source nick@192.? destination

Question 3[25 points]

1. List and describe the 4 REST operations performed on resources together with their HTTP equivalents. **[8]**

2. An organization has a system called mystery running on Linux with a MySQL database.

   a. Explain how we could integrate this system with other internal and external systems using REST API. **[4]**

   b. Provide a step by step description of how this system could be integrated with other systems using file transfer. **[3]**

3. Assume you have a REST API with the following in its help file:

   - To retrieve one mobile phone: `https://techcity.co.bw/api/v1/phone/ime/{ime}`.

   a. Assuming you are running on a Linux terminal with *httpie* installed, provide a command to retrieve a phone with an imaginary IME number *100149009*. **[3]**

   b. Design an API URL that could be used to update mobile phone details in the sample API with help file above. **[2]**

   c. Assuming the database for the above API has a database called *mobiT* with table *phonesT{IME, make, model, color, specs}*, provide a PHP function that connects to the database and retrieves all phones. Assume a MySQL user called *Jim* with password *trq@R4*. Use PDO. **[5]**

18 + 11.5 + 10 = 53%

Praveen Sridharan

20160083

345 : test 1

Question 1 (18)

a) (7)

```
<HealthConditions>
    <Conditions>
        <type> Flu </type>
        <Drugs>
            <Drug> Benadryl </Drug>
            <Drug> Chlorpheniramine </Drug>
        </Drugs>
        <Natural> Echinacea </Natural>
        <Symptoms>
            <Symptom> running nose </symptom>
            <Symptom> Cough </symptom>
            <Symptom> Fever </symptom>
        </Symptoms>
    </Conditions>
    <Conditions>
        <type> Pain </type>
        <Drugs>
            <Drug> Paracetamol </Drug>
            <Drug> ibuprofen </Drug>
        </Drugs>
        <Natural> whiskey </Natural>
        <symtom> Feeling Some pain </symptom>
    </Condition>
    <Condition>
        <type> Diarrhea </type>
        <Drugs>
```

<Drug> loperamide </Drug>
<Drug> Anti-diarrheal </Drug>
</Drugs>
<Natural> Green tea </Natural>
<symptom> frequent loose watery stools </symptom>
</Condition>
<Condition>
<type> Htype tension </type>
<Drugs>
<Drug> Lisinopril </Drug>
<Drug> hydrochlorothiazide </Drug>
</Drugs>
<Natural> Black haw </Natural>
<Symptom> Blood pressure above normal </Symptom>
</Condition>
<Condition>
<type> Acne </type>
<Drugs>
<Drug> doxycycline </Drug>
<Drug> minocycline </Drug>
</Drugs>
<Natural> tea tree antiseptic </Natural>
<Symptom> Skin Rash </Symptom>
</Condition>
</Health Conditions>

b)

(6)

```
[
  {
    "type" : "Flu"
    "Drugs" : ["Benedryl", "Chlorpheniramine"]
    "Natural" : "Echinacea"
    "Symptoms" : ["running nose", "cough", "fever"]
  },
  {
    "type" : "Pain"
    "Drugs" : ["Paracetamol", "ibuprofen"]
    "Natural" : "Whiskey"
    "Symptoms" : "Feeling Some Pain"
  },
  {
    "type" : "Diarrhea"
    "Drugs" : ["Imodium", "Anti-Diarrheal"]
    "Natural" : "Green tea"
    "Symptoms" : "Frequent loose watery stools"
  },
  {
    "type" : "Hypertension"
    "Drugs" : ["Lisinopril", "hydrochlorothiazide"]
    "Natural" : "Black haw"
    "Symptoms" : "Blood pressure above normal"
  },
  {
    "type" : "Acne"
    "Drugs" : ["doxycycline", "minocycline"]
    "Natural" : "tea tree Antiseptic"
    "Symptoms" : "Skin Rash"
  }
]
```

c) Create table HealthConditions (Conditions VARCHAR (20), not null, Drug, Varchar (1000), Natural Varchar (100), Symptoms varchar (1000))

(0)

d) Insert Into HealthConditions Values ("Flu", "Benadryl, chlorpheniramine", "Echinea", "Running nose, cough, Fever")

(2)

Insert into HealthConditions Values ("Pain", "Paracetamol, ibuprofen", "Whiskey", "Feeling some pain")

Insert into HealthConditions Values ("Hypertension", "Lisinopril, hydrochlorothiazide", "black haw", "blood pressure is above normal")

Insert into HealthConditions Values ("Diarrhea", "Loperamide, Anti-diarrheal", "Green tea", "Frequent loose watery stools")

Insert into HealthConditions Values ("Acne", "doxycycline, minocycline", "tea tree antiseptic", "skin Rash")

c) JSON is smaller in size, so it requires less storage space and is easier to manage. JSON also allows the use of arrays unlike XML. JSON also requires no start and end tags which XML does. XML however is easier to read by anyone, regardless of having a programming background.

(3)

Question 2 (11.5)

a) docker start ...
mysql -uroot -pCSIt3st1@2020 ✓ (1)
Create user "myuser" Identified by "CSIt3st1@2020" (2)

b) Grant ALL Privileges ON students.* to myuser@; (3.5)

c) mysqldump -uroot -pCSIt3st1@2020 students > students.sql (5)

d)

(0)

→ Q3 pto

Question 3 (10)

a)

Rest Operation	Http equivalent
Create	Post
Read	Get
Update	Put
Delete	Delete

6

b) i) Rest api's allow data stored in mystery's database to be accessed and ~~edited~~ edited by other systems by giving access to those other systems. 6

c) i) Http : GET https://techcity.co.bw/api/v1/phone/~~me~~/10014009 3

ii) https://techcity.co.bw/api/v1/phone/~~insert~~update/2 3 1

iii)

```
<?Php
    $IP = "10.0.19.2";
    $db_name = "MobiT";
    $table = "phonesT";
    $Conn ;

    Conn =>this.dbConnect();
PDO (                    ?    );
    query = "Select * FROM phonesT";
```

1