UNIVERSITÉ PARIS 1 PANTHÉON SORBONNE

TRAVEL AGENCY

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Table of contents

I.   SCENARIO

WHAT
Travel to Europe offers trips to Europe for a reasonable price.

WHO
The RENOIRS, composed by 4 people, decide to visit European cities for holidays with a maximal budget of 3000€ (hotels, guides, monuments and transport included).

WHY
Consulting an experimented agency, the family avoids scams, doesn't waste time on booking tickets for transport and monuments and on making hotel reservations.
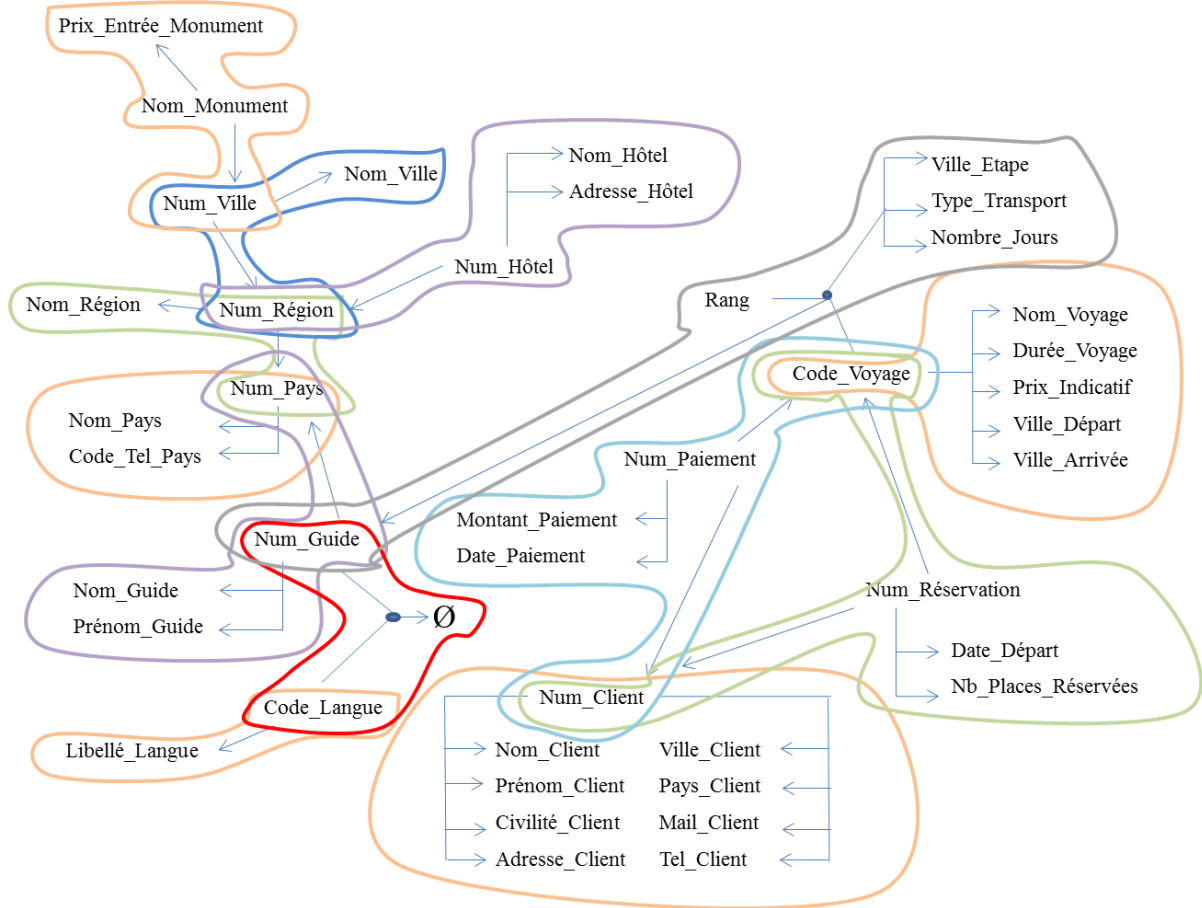And **of course**: Doesn't exceed the budget!

WHEN
Any time of the year

WHERE
In several European cities

II.   Creation of the database

1) Graph and relations

a) Graph of functional dependencies

b) Pattern of relations

CLIENT (<u>Num_Client</u>, Nom_client, Prénom_Client, Civilité_Client, Adresse_Client, Ville_Client, Pays_Client, Mail_Client, Tel_Client)

RESERVATION (<u>Num_Réservation</u>, Date_Départ, Nb_Places_Réservées, Num_Client#, Code_Voyage#)

VOYAGE (<u>Code_Voyage</u>, Nom_Voyage, Durée_Voyage, Prix_Indicatif, Ville_Départ, Ville_Arrivée)

PAIEMENT (<u>Num_Paiement</u>, Montant_Paiement, Date_Paiement, Num_Client#, Code_Voyage#)

VOYAGE_ETAPE (<u>Code_Voyage#, Rang</u>, Ville_Etape, Type_Transport, Nombre_Jours, Num_Guide#)

GUIDE (<u>Num_Guide</u>, Nom_Guide, Prénom_Guide, Num_Pays#)

GUIDE_HAS_LANGUE (<u>Code_Langue#,Num_Guide#</u>)

LANGUE (<u>Code_Langue</u>, Libellé_Langue)

PAYS (<u>Num_Pays</u>, Nom_ Pays, Code_Tel_Pays)

REGION (<u>Num_Région</u>, Nom_Région, Num_Pays#)

VILLE (<u>Num_Ville</u>, Nom_Ville, Num_Region#)

HOTEL (<u>Num_Hotel,</u> Num_Région#, Nom_Hotel, Adresse_Hotel)
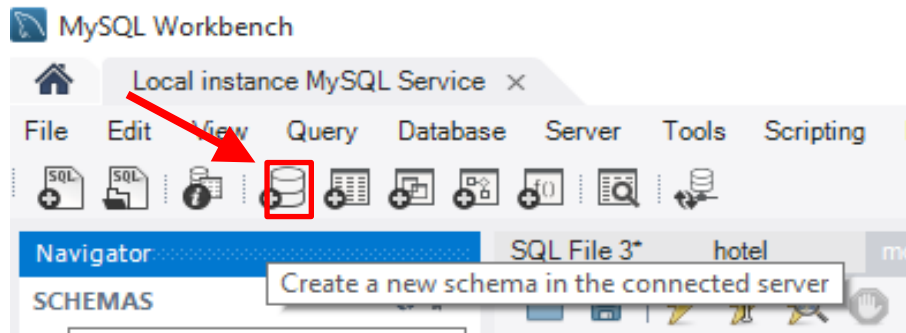
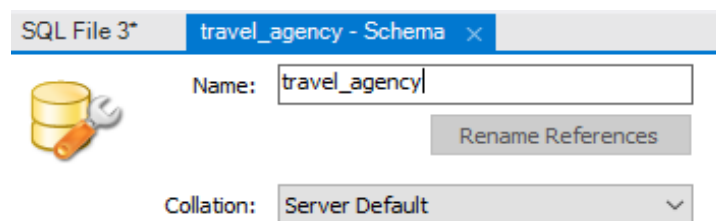MONUMENT (<u>Nom_Monument</u>, Num_Ville#, Prix_Entrée_Monument)

2) MySQL

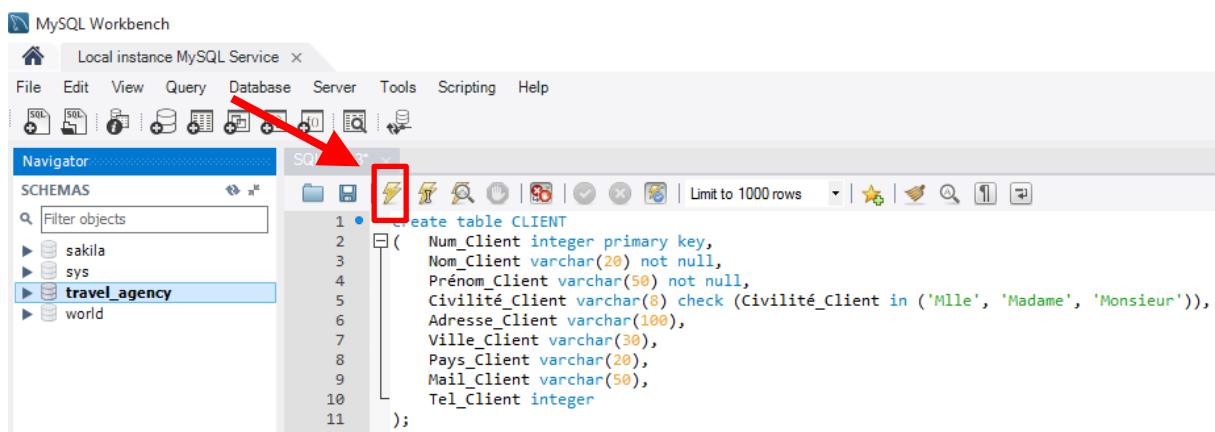### a) Insertion of tables

To create the data base:
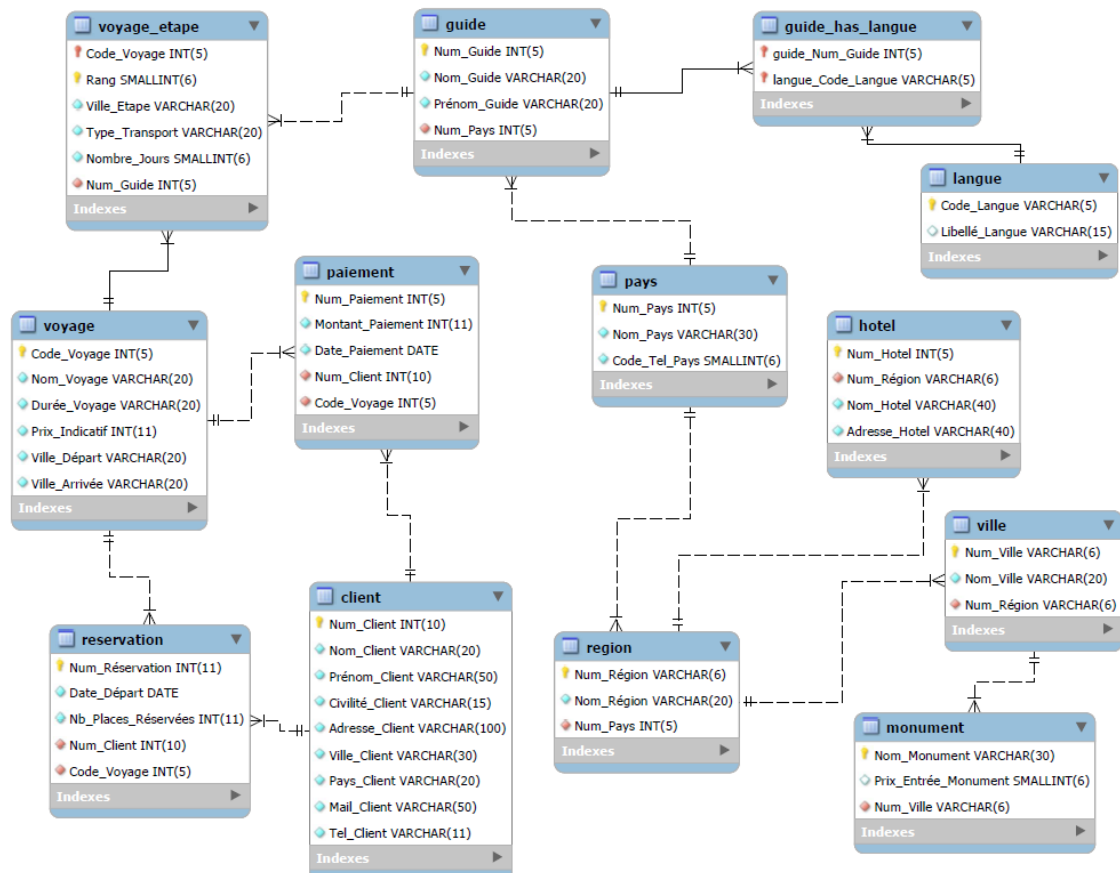1. Create the pattern on the host

2. Name the pattern

3. Create table in the pattern

There are two possibilities for inserting tables: either run a script or manually create the tables in MySQL. We chose the first option.

b) **Creation of the diagram**
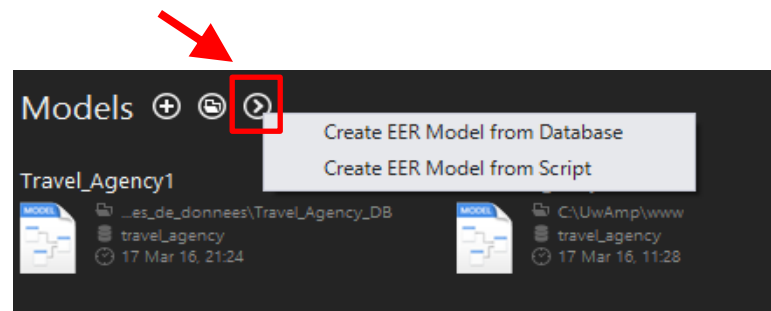
c) **Insertion of values into the data base**

Example 1: Insertion of the information regarding the client M. Simon Dupont, living at 3 Rue de Rivoli in Paris, France, hence the e-mail is « simon.dupont@gmail.com »

```
INSERT INTO CLIENT
VALUES (3, "Dupont", "Simon", "Monsieur", "3 Rue de Rivoli", "Paris", "France", "simon.dupont@gmail.com", NULL);
```

Example 2: Insertion of the German language hence the code is « de »

```
insert into LANGUE
values ("de","Allemand");
```

III. PHP

1) Log in/Log out with the database

```php
<?php
    $servername = "localhost";
    $username = "root";
    $password = "****";
    $dbname = "travel_agency";

    // Create connection
    $conn = new mysqli($servername, $username, $password, $dbname);
    // Check connection
    if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
    }
$conn->close();
?>
```

2) Insertion of values by the user

The client inserts one's personal information into the form. After he has clicked on "Valider", the acquainted data is checked as it is shown in the next code.
For example, the name must only contain letters and spaces, not special characters.

3) Validation of data

```php
if ($_POST["civilité"] == "null") {
    $civErr = "Entrez votre civilité.";
    $valid = false;
} else {
    $civilité = test_input($_POST["civilité"]);
}

$nom = test_input($_POST["nom"]);
if (!preg_match("/^[a-zA-Z]*$/", $nom)) {
    $nomErr = "Only letters and white space allowed";
    $valid = false;
}

$prénom = test_input($_POST["prénom"]);
if (!preg_match("/^[a-zA-Z]*$/", $prénom)) {
    $prénomErr = "Only letters and white space allowed";
    $valid = false;
}
```

4) Insertion of data into the data basis after validation

After the data has been checked, it is automatically inserted into the database, as it is shown in the code bellow with the query: "`INSERT INTO `CLIENT ` …` "

```php
if($valid){
    $sql = "INSERT INTO `CLIENT` (`Nom_Client`, `Prénom_Client`,
        VALUES ('{$_SESSION['nom']}', '{$_SESSION['prénom']}', '

    if ($conn->query($sql) === TRUE) {
        $last_id = $conn->insert_id;
        $_SESSION["id"] = $last_id;
        //echo "New record created successfully. Last insert
    } else {
        echo "Error: " . $sql . "<br>" . $conn->error;
    }
    $conn->close();

    $_SESSION['civilité'] = $_POST['civilité'];
    $_SESSION['nom'] = $_POST['nom'];
    $_SESSION['prénom'] = $_POST['prénom'];
    $_SESSION['email'] = $_POST['email'];
    $_SESSION['adresse'] = $_POST['adresse'];
    $_SESSION['ville'] = $_POST['ville'];
    $_SESSION['pays'] = $_POST['pays'];
    $_SESSION['tel'] = $_POST['tel'];
    $_SESSION['budget'] = $_POST['budget'];
    $_SESSION['quantity'] = $_POST['quantity'];
    header('Location: DB_form_resp.php');
}
```

We can check that the client really exists in the database
.

Num_Client	Nom_Client	Prénom_Client	Civilité_Client	Adresse_Client	Ville_Client	Pays_Client	Mail_Client	Tel_Client
1	Dupont	Stéphane	Monsieur	3 Rue de Rivoli	Paris	France	dupont.stephane@gmail.com	612345678
2	Dupont	Cécille	Madame	3 Rue de Rivoli	Paris	France	dupont.cecille@gmail.com	69865432
3	Dupont	Simon	Monsieur	3 Rue de Rivoli	Paris	France	simon.dupont@gmail.com	NULL
4	Dupont	Elvire	Mlle	3 Rue de Rivoli	Paris	France	elvire.dupont@gmail.com	NULL
5	Renoir	Claude	Monsieur	84 Boulevard Marius Vivier Merle	Lyon	France	claude.renoir@gmail.fr	33478601560

5) Summary and choice of the travel and of the departure date

In harmony with the budget and the number of travelers, several choices of travels are proposed to the client.
In this case, the client can choose between three travels (we admit that he already knows the travels' descriptions).

Récapitulatif

Nom: Renoir

Prénom: Claude

Adresse: 84 Boulevard Marius Vivier MerleLyon France

E-mail: claude.renoir@gmail.fr

Téléphone: +33478601560

Nombre de voyageurs: 4

Voyages disponibles:

- ◉ VOYAGE1
- ○ VOYAGE2
- ○ VOYAGE3

Date de départ

```
05/21/2016
```

Valider

After he has selected a travel and validates, the departure date is checked in such a way that it is superior to the date of the day. This is what the next code illustrates:

```php
$date_deb = test_input($_POST["date_deb"]);

date_default_timezone_set("Europe/Paris");
$date = date('m/d/Y h:i:s a', time());
$date1 = strtotime($date_deb);
$date2 = strtotime($date);

if($date1 < $date2)
{
    $diffErr = "Erreur! La date de début est inférieure à la date currente!";
    $valid = false;
}
```

6) Final summary

In coherence with the travel chosen by the client, a description of every step of the travel is posted in order to check the data and make an eventual reservation.

7) Reservation and payment

After he has clicked on "Réserver", we admit that the client has reserved and payed the concerned travel. We can see that a new reservation has been created.

```php
$sql = "INSERT INTO `RESERVATION` (`Date_Départ`, `Nb_Places_Réservées`, `Num_Client`, `Code_Voyage`)
        VALUES ('{$_SESSION['date_deb']}', '{$_SESSION['quantity']}', '{$_SESSION['id']}', '{$_SESSION['code']}')";
if ($conn->query($sql) === TRUE) {
    $last_id = $conn->insert_id;
    //echo "New record created successfully. Last inserted id is: " . $last_id;
} else {
    echo "Error: " . $sql . "<br>" . $conn->error;
}
```

	Num_Réservation	Date_Départ	Nb_Places_Réservées	Num_Client	Code_Voyage
▶	1	2016-07-01	4	1	1
	2	2016-05-21	4	2	1
	3	2016-06-09	4	3	2
	4	2016-08-17	2	4	3
	5	2016-05-21	4	5	1

Notice that a new payment has been made here in the same way.

```php
date_default_timezone_set("Europe/Paris");
$date = date('Y/m/d');

$sql = "INSERT INTO `PAIEMENT` (`Montant_Paiement`, `Date_Paiement`, `Num_Client`, `Code_Voyage`)
        VALUES ('{$_SESSION['n']}', '{$date}', '{$_SESSION['id']}', '{$_SESSION['code']}')";
if ($conn->query($sql) === TRUE) {
    $last_id = $conn->insert_id;
    //echo "New record created successfully. Last inserted id is: " . $last_id;
} else {
    echo "Error: " . $sql . "<br>" . $conn->error;
}
```

	Num_Paiement	Montant_Paiement	Date_Paiement	Num_Client	Code_Voyage
▶	345	1680	2015-12-01	1	1
	346	1680	2016-02-01	2	1
	347	1200	2016-01-20	3	2
	348	1060	2016-03-23	4	3
→	349	1680	2016-03-18	5	1

8) Queries

QUERY 1: What are the available travels for the corresponding budget and number of people ?

```php
$sql = "SELECT Nom_Voyage FROM voyage WHERE Prix_Indicatif*'{$_SESSION['quantity']}' <= '{$_SESSION['budget']}'";
$result = $conn->query($sql);
```

QUERY 2: What is the price, the departure city, the arrival city, the travel duration for the chosen travel ?

```php
$sql = "SELECT Prix_Indicatif, Ville_Départ, Ville_Arrivée, Durée_Voyage, Code_Voyage
        FROM VOYAGE
        WHERE nom_voyage = '{$_SESSION['choix']}'";
$result = $conn->query($sql);
```

REQUETE 3: What is the program of the chosen travel?

```php
$sql = "SELECT Rang, Ville_Etape, Type_Transport, Nombre_Jours, Nom_Guide, Prénom_Guide, Nom_Hotel
        FROM VOYAGE_ETAPE NATURAL JOIN GUIDE NATURAL JOIN PAYS NATURAL JOIN REGION NATURAL JOIN HOTEL
        WHERE Code_Voyage = '{$code}'";
$result = $conn->query($sql);
```

IV.   Conclusion

The reservation of M. RENOIR Claude ends with the page bellow, same for the payment.
We admit that the summary of the reservation has been sent on the acquainted e-mail. Hoping that he is going to have a nice trip: "*Wherever he goes, he goes with all his heart*".