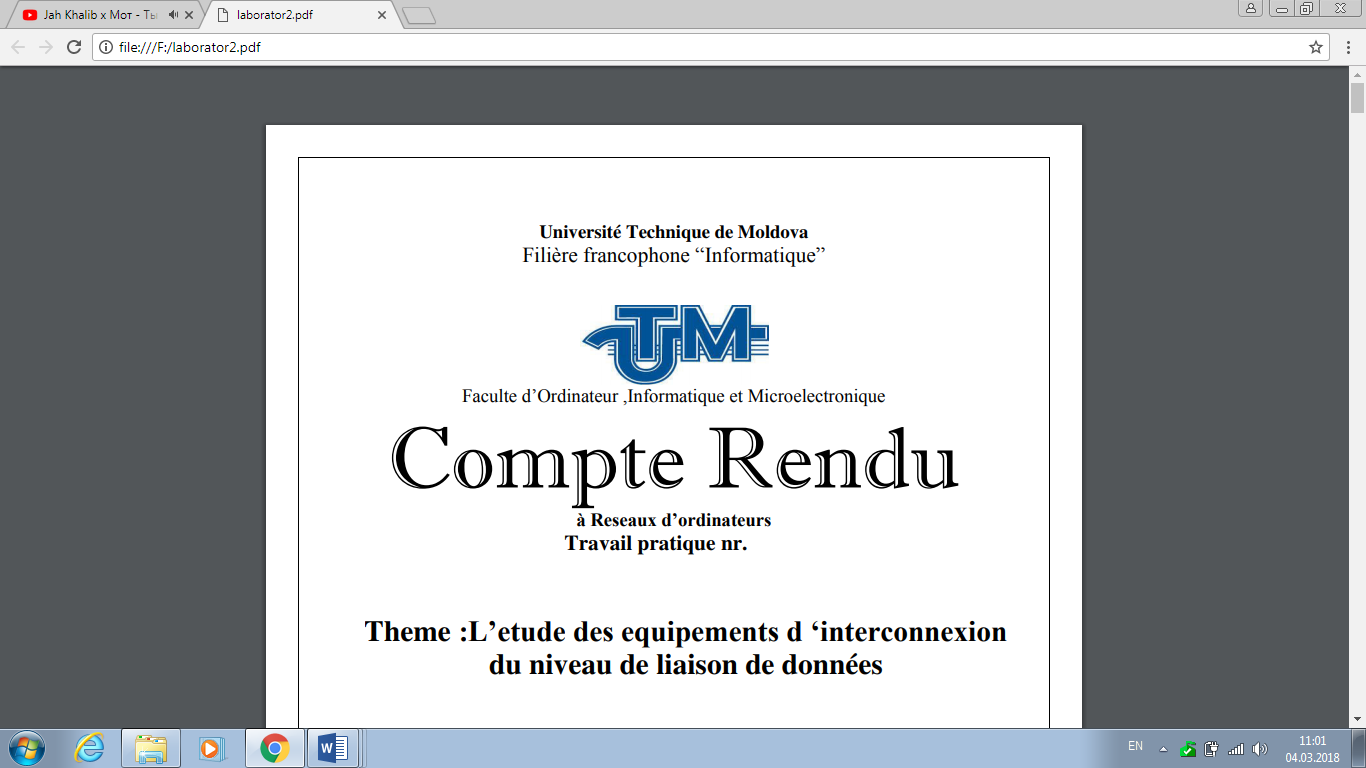
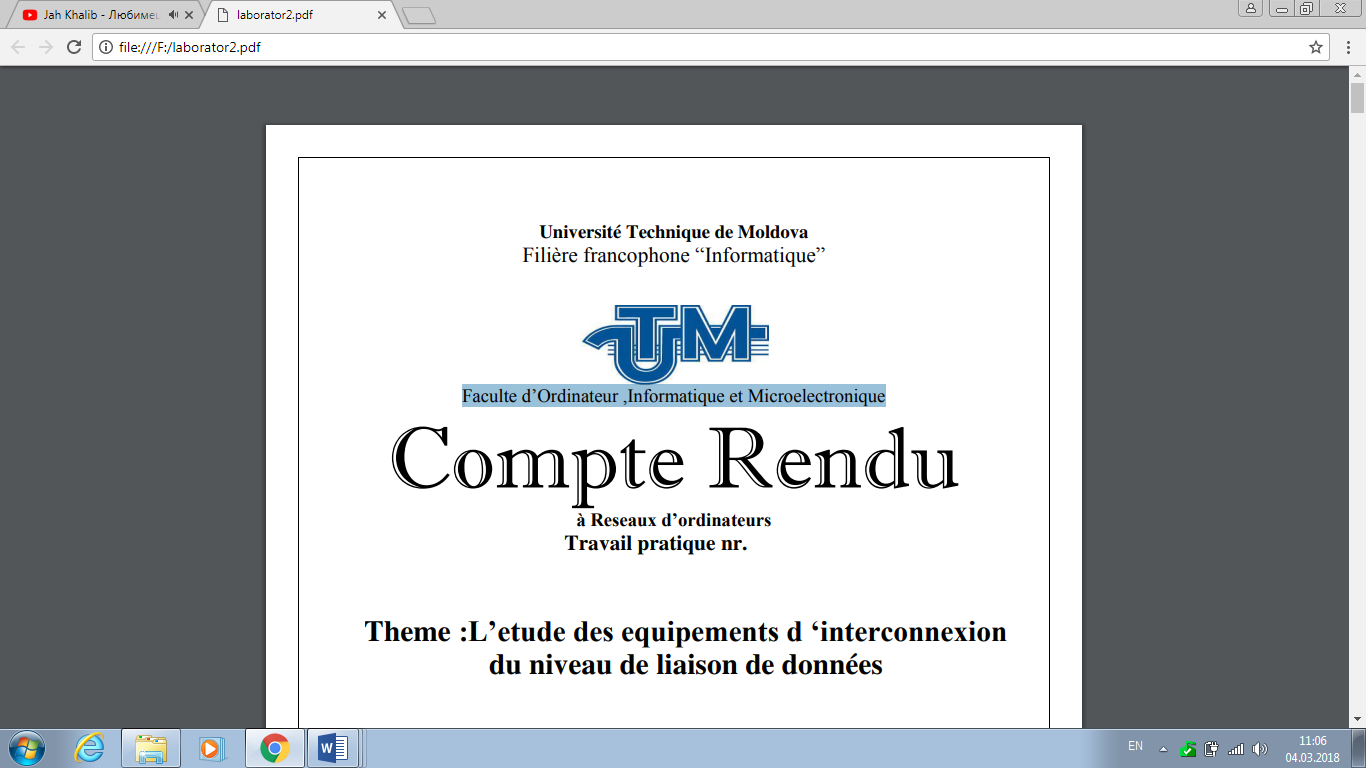
Ministère de l'éducation de la République de Moldova

Université technique de Moldavie

Faculté d’Ordinateur, Informatique et Microélectronique

Filière francophone “Informatique”





**OOP**

Travail pratique nr.4

**Thème : Spring Database Connection**

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**Student.java**

public class Student {  
 private int studentId;  
 private String firstName;  
 private String lastName;  
 private String gender;  
 private String group;  
 private double average;  
  
 public Student(int studentId, String firstName, String lastName, String gender, String group, double average) {  
 this.studentId = studentId;  
 this.firstName = firstName;  
 this.lastName = lastName;  
 this.gender = gender;  
 this.group = group;  
 this.average = average;  
 }  
  
 public int getStudentId() {  
 return studentId;  
 }  
  
 public void setStudentId(int studentId) {  
 this.studentId = studentId;  
 }  
  
 public String getFirstName() {  
 return firstName;  
 }  
  
 public void setFirstName(String firstName) {  
 this.firstName = firstName;  
 }  
  
 public String getLastName() {  
 return lastName;  
 }  
  
 public void setLastName(String lastName) {  
 this.lastName = lastName;  
 }  
  
 public String getGender() {  
 return gender;  
 }  
  
 public void setGender(String gender) {  
 this.gender = gender;  
 }  
  
 public String getGroup() {  
 return group;  
 }  
  
 public void setGroup(String group) {  
 this.group = group;  
 }  
  
 public double getAverage() {  
 return average;  
 }  
  
 public void setAverage(double average) {  
 this.average = average;  
 }  
}

**StudentRepository.java**

import org.springframework.beans.factory.annotation.Autowired;  
import org.springframework.jdbc.core.JdbcTemplate;  
import org.springframework.stereotype.Repository;  
  
import java.util.List;  
  
@Repository  
public class StudentRepository {  
 @Autowired  
 private JdbcTemplate jdbcTemplate;  
  
 public List<Student> findAll() {  
 return jdbcTemplate.query(  
 "SELECT *\** FROM Student",  
 (reponse, rownumber) ->  
 new Student(reponse.getInt("studentid"),  
 reponse.getString("firstName"),  
 reponse.getString("lastname"),  
 reponse.getString("gender"),  
 reponse.getString("group"),  
 reponse.getDouble("average")));  
 }  
  
  
 public void save(Student student) {  
 jdbcTemplate.update(  
 "INSERT INTO Student(firstName, lastName, gender, \"group\", average) VALUES(?,?,?,?,?)",  
 student.getFirstName(), student.getLastName(), student.getGender(), student.getGroup(), student.getAverage());  
 }  
  
 public void delete(String firstName){  
 jdbcTemplate.update(  
 "DELETE FROM Student WHERE firstName = ?",firstName);  
 }  
  
  
}

**UniversityWebService.java**

import org.springframework.beans.factory.annotation.Autowired;  
import org.springframework.web.bind.annotation.\*;  
  
import java.util.List;  
  
@RestController  
@RequestMapping("/university/")  
public class UtmWebService {  
  
 @Autowired  
 StudentRepository studentRepository;  
  
 @GetMapping("student")  
 public List<Student> findAll() {  
 return studentRepository.findAll();  
 }  
  
 @PostMapping("student")  
 public void save(@RequestBody Student student) {  
 studentRepository.save(student);  
 }  
  
 @DeleteMapping("student/{firstName}")  
 public void delete(@PathVariable String firstName) {  
 studentRepository.delete(firstName);  
 }  
}

**Database.sql**

CREATE TABLE Student  
(  
 studentId serial primary key,  
 firstName varchar(15) not null,  
 lastName varchar(15) not null,  
 gender varchar(15) not null,  
 "group" varchar(15) not null,  
 average float not null  
);  
  
  
INSERT INTO Student(firstName, lastName, gender, "group", average) VALUES ('Teodor','Vrabie','male','Fi-181',9);  
  
SELECT *\**FROM Student;