SOLUTIONS FOR GUIDED LAB 1

Employee.java

```
/*
 *
 */
package com.employeemanagement.model;

import java.util.List;


public class Employee {

	/**
	 * @return the employeeId
	 */
	public int getEmployeeId() {
		return employeeId;
	}
	/**
	 * @param employeeId the employeeId to set
	 */
	public void setEmployeeId(int employeeId) {
		this.employeeId = employeeId;
	}
	/**
	 * @return the employeeName
	 */
	public String getEmployeeName() {
		return employeeName;
	}
	/**
	 * @param employeeName the employeeName to set
	 */
	public void setEmployeeName(String employeeName) {
		this.employeeName = employeeName;
	}
	/**
	 * @return the numberOfYearsOfExperience
	 */
	public int getNumberOfYearsOfExperience() {
		return numberOfYearsOfExperience;
	}
	/**
	 * @param numberOfYearsOfExperience the numberOfYearsOfExperience to set
	 */
	public void setNumberOfYearsOfExperience(int numberOfYearsOfExperience) {
		this.numberOfYearsOfExperience = numberOfYearsOfExperience;
	}
	/**
	 * @return the skillSets
	 */
	public List<Skills> getSkillSets() {
		return skillSets;
	}
	/**
	 * @param skillSets the skillSets to set
	 */
	public void setSkillSets(List<Skills> skillSets) {
		this.skillSets = skillSets;
	}
	private int employeeId;
	private String employeeName;
	private int numberOfYearsOfExperience;
	private List<Skills> skillSets;

}
```

Skills.java

```
/**
 *
 */
package com.employeemanagement.model;


public class Skills {

	/**
	 * @return the trackName
	 */
	public String getTrackName() {
		return trackName;
	}
	/**
	 * @param trackName the trackName to set
	 */
	public void setTrackName(String trackName) {
		this.trackName = trackName;
	}
	/**
	 * @return the skillName
	 */
	public String getSkillName() {
		return skillName;
	}
	/**
	 * @param skillName the skillName to set
	 */
	public void setSkillName(String skillName) {
		this.skillName = skillName;
	}
	/**
	 * @return the proficiencyLevel
	 */
	public String getProficiencyLevel() {
		return proficiencyLevel;
	}
	/**
	 * @param proficiencyLevel the proficiencyLevel to set
	 */
	public void setProficiencyLevel(String proficiencyLevel) {
		this.proficiencyLevel = proficiencyLevel;
	}
	private String trackName;
	private String skillName;
	private String proficiencyLevel;

}
```

EmployeeManagementSystemApplication.java

```
package com.employeemanagement.config;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
import org.springframework.context.annotation.ComponentScan;

@SpringBootApplication
@ComponentScan({"com.employeemanagement.config,com.employeemanagement.controller,com.employeemanagement.model,com.employeemanagement.service,com.employeemanagement.exception"}) public class EmployeeManagementSystemApplication {

	public static void main(String[] args) {
		SpringApplication.run(EmployeeManagementSystemApplication.class, args);
	}
}
```

EmployeeManagementController.java

```
/**
 *
 */
package com.employeemanagement.controller;

import java.util.Hashtable;
import java.util.List;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.http.MediaType;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RestController;

import com.employeemanagement.exception.EmployeeManagementException;
import com.employeemanagement.model.Skills;
import com.employeemanagement.service.EmployeeManagementService;

@RestController
@RequestMapping("/employees")
public class EmployeeManagementController {

	@Autowired
	EmployeeManagementService employeeManagementService;

	/**
	 * @param employeeName
	 * @return List
	 * @throws EmployeeManagementException
	 */
	@GetMapping(value = "/skills/{employeeName}")
	public List<Skills> getListOfSkillsetOfAnEmployee(@PathVariable("employeeName") String employeeName)
			throws EmployeeManagementException {
		return employeeManagementService.getListOfSkillSetOfAnEmployee(employeeName);
	}

	/**
	 * @return Hashtable
	 */
	@RequestMapping(value = "/allSkills", produces = MediaType.APPLICATION_JSON_VALUE)
	public Hashtable<String, Skills> getListOfAllSkills() {
		return employeeManagementService.getListOfAllSkills();
	}

}
```

EmployeeManagementService.java

```
/**
 *
 */
package com.employeemanagement.service;

import java.util.ArrayList;
import java.util.Hashtable;
import java.util.List;

import org.springframework.stereotype.Service;

import com.employeemanagement.exception.EmployeeManagementException;
import com.employeemanagement.model.Employee;
import com.employeemanagement.model.Skills;


@Service
public class EmployeeManagementService {

	Employee employee=new Employee();
	Skills skill=new Skills();
	Skills skill8=new Skills();
	List<Skills> employeeskillset=new ArrayList<Skills>();
	Hashtable<String,Skills> skillsetno=new Hashtable<String,Skills>();


	public EmployeeManagementService()
	{

	skill4.setTrackName("Java");
	skill4.setSkillName("Spring Core");
	skill4.setProficiencyLevel("PL2");


	skill8.setTrackName("DotNet");
	skill8.setSkillName("ASP.NET MVC");
	skill8.setProficiencyLevel("PL1");

	employeeskillset.add(skill4);
//	employeeskillset.add(skill8);


	employee.setEmployeeId(1);
	employee.setEmployeeName("XXX");
	employee.setNumberOfYearsOfExperience(1);
	employee.setSkillSets(employeeskillset);


	}

	/**
	 * @param employeeName
	 * @return List
	 * @throws EmployeeManagementException
	 */
	public List<Skills> getListOfSkillSetOfEmployee(String employeeName) throws EmployeeManagementException {

		if(employeeName.equalsIgnoreCase(employee.getEmployeeName()))
		{
			employeeskillset=employee.getSkillSets();
		}

		else
		{
			throw new EmployeeManagementException("Invalid Id");
		}

		return employeeskillset;
	}

	/**
	 * @return Hashtable
	 */
	public Hashtable<String,Skills> getListOfAllSkills()
	{
		skillsetno.put("1",skill4);
		skillsetno.put("2",skill8);
		return skillsetno;
	}

}
```

EmployeeManagementException.java

```
/**
 *
 */
package com.employeemanagement.exception;

import org.springframework.stereotype.Component;

@Component
public class EmployeeManagementException extends Exception{

	private static final long serialVersionUID=1;
	private String code;
	public EmployeeManagementException(String message) {
		super();

		this.message=message;
		// TODO Auto-generated constructor stub
	}

	public EmployeeManagementException() {
		super();

	}
	/**
	 * @return the code
	 */
	public String getCode() {
		return code;
	}
	/**
	 * @param code the code to set
	 */
	public void setCode(String code) {
		this.code = code;
	}
	/**
	 * @return the message
	 */
	public String getMessage() {
		return message;
	}
	/**
	 * @param message the message to set
	 */
	public void setMessage(String message) {
		this.message = message;
	}
	private String message;


}
```

ExceptionResponse.java

```
/**
 *
 */
package com.employeemanagement.exception;

import org.springframework.stereotype.Component;


@Component
public class ExceptionResponse {

	private String message;
	public ExceptionResponse(String message, String details) {
		// TODO Auto-generated constructor stub
		this.message=message;
		this.description=details;
	}

	public ExceptionResponse() {
		// TODO Auto-generated constructor stub
		super();
	}
	/**
	 * @return the message
	 */
	public String getMessage() {
		return message;
	}
	/**
	 * @param message the message to set
	 */
	public void setMessage(String message) {
		this.message = message;
	}
	/**
	 * @return the description
	 */
	public String getDescription() {
		return description;
	}
	/**
	 * @param description the description to set
	 */
	public void setDescription(String description) {
		this.description = description;
	}
	private String description;

}
```

ErrorHandlingController.java

```
/**
 *
 */
package com.employeemanagement.exception;

import org.springframework.http.HttpHeaders;
import org.springframework.http.HttpStatus;
import org.springframework.http.ResponseEntity;
import org.springframework.web.bind.annotation.ControllerAdvice;
import org.springframework.web.bind.annotation.ExceptionHandler;
import org.springframework.web.servlet.mvc.method.annotation.ResponseEntityExceptionHandler;

@ControllerAdvice
public class ErrorHandlingController extends ResponseEntityExceptionHandler {

	/**
	 * @param e
	 * @return ResponseEntity
	 */
	@ExceptionHandler(EmployeeManagementException.class)
	public final ResponseEntity<ExceptionResponse> somethingWentWrong(Exception e)
	{

		ExceptionResponse errorMessage=new ExceptionResponse(e.getMessage(),"Please Enter a valid Employee Name");
		return new ResponseEntity(errorMessage,new HttpHeaders(),HttpStatus.INTERNAL_SERVER_ERROR);
	}



}
```