Code:

RestapiOne:

Spring boot Application :

```java
package com.example;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication
public class MicroservicesSpringBootApplication {

    public static void main(String[] args) {

    SpringApplication.run(MicroservicesSpringBootApplication.class,
args);
    }

}
```

PersonResponse:

```java
package com.example;

public class PersonResponse {

    private Integer personId;
    private String name;
    private Integer age;
    private String hobby;
    public Integer getPersonId() {
        return personId;
    }
    public void setPersonId(Integer personId) {
        this.personId = personId;
    }
    public String getName() {
        return name;
    }
    public void setName(String name) {
        this.name = name;
    }
    public Integer getAge() {
        return age;
```

```java
    }
    public void setAge(Integer age) {
        this.age = age;
    }
    public String getHobby() {
        return hobby;
    }
    public void setHobby(String hobby) {
        this.hobby = hobby;
    }


}
```

PersonController:

```java
package com.example.controller;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.RequestBody;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestMethod;
import org.springframework.web.bind.annotation.RestController;

import com.example.PersonResponse;
import com.example.entity.PersonEntity;
import com.example.service.PersonService;

@RestController
@RequestMapping(path="/webapione")
public class PersonController {

    @Autowired
    PersonService personService;

    @RequestMapping("/person/{id}")
    public PersonResponse getPerson(@PathVariable int id)
    {
        return personService.getPerson(id);
    }

    @RequestMapping(method= RequestMethod.POST, path="/person",
consumes="application/json", produces="application/json")
    public void addPerson(@RequestBody PersonEntity pe) {
        personService.addPerson(pe);
```

```
        }
}
```

PersonEntity:

```java
package com.example.entity;

import jakarta.persistence.Column;
import jakarta.persistence.Entity;
import jakarta.persistence.GeneratedValue;
import jakarta.persistence.GenerationType;
import jakarta.persistence.Id;

@Entity
public class PersonEntity {

    @Id
    @GeneratedValue(strategy  = GenerationType.AUTO)
    @Column(name="id",nullable = false)
    private Integer personId;

    private String name;
    private Integer age;

    public PersonEntity() {

    }

    public PersonEntity(Integer personId, String name, Integer age) {
        super();
        this.personId = personId;
        this.name = name;
        this.age = age;
    }

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public Integer getAge() {
        return age;
    }
```

```java
        public void setAge(Integer age) {
                this.age = age;
        }

        public Integer getPersonId() {
                return personId;
        }


}
```

PersonRepository:

```java
package com.example.Repository;

import org.springframework.data.jpa.repository.JpaRepository;
import org.springframework.stereotype.Repository;

import com.example.entity.PersonEntity;

@Repository
public interface PersonRepository extends JpaRepository<PersonEntity, Integer> {

}
```

PersonService:

```java
package com.example.service;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import org.springframework.web.client.RestTemplate;

import com.example.PersonResponse;
import com.example.Repository.PersonRepository;
import com.example.entity.PersonEntity;

@Service
public class PersonService {

        @Autowired
        PersonRepository personRepository;
```

```java
    RestTemplate restTemplate = new RestTemplate();

    public PersonResponse getPerson(int personId) {

        final String uri =
"http://localhost:8062/webapitwo/hobby/"+personId;

        //Map<String , Integer> params = new HashMap<String,
Integer>();

        String result = restTemplate.getForObject(uri,
String.class);

        PersonEntity pe = personRepository.findById(personId).get();

        PersonResponse pr = new PersonResponse();
        pr.setPersonId(pe.getPersonId());
        pr.setName(pe.getName());
        pr.setAge(pe.getAge());
        pr.setHobby(result);

        return pr;

    }

    public void addPerson(PersonEntity pe) {
        personRepository.save(pe);
    }
}
```

Application.properties:

```
server.port=8060
spring.application.name=RestApiOne

spring.h2.console.enabled=true

spring.jpa.hibernate.ddl-auto=update
```

RestApiTwo:

Application:

```java
package com.example;

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

@SpringBootApplication
@ComponentScan("com.example")
public class RestApiTwoApplication {

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

}
```

HobbyEntity:

```java
package com.example;

import jakarta.persistence.Column;
import jakarta.persistence.Entity;
import jakarta.persistence.GeneratedValue;
import jakarta.persistence.GenerationType;
import jakarta.persistence.Id;

@Entity
public class HobbyEntity {

    @Id
    @GeneratedValue(strategy = GenerationType.AUTO)
    @Column(name = "id", updatable = false, nullable = false)
    private Integer id;
    @Column
    private Integer personId;
    @Column
    private String name;

    public HobbyEntity() {
        super();
    }
    public HobbyEntity(Integer personId, String name) {
```

```java
            super();
            this.personId = personId;
            this.name = name;
        }
    public Integer getPersonId() {
            return personId;
        }
    public void setPersonId(Integer personId) {
            this.personId = personId;
        }
    public String getName() {
            return name;
        }
    public void setName(String name) {
            this.name = name;
        }
}
```

HobbyRepository:

```java
package com.example;

import org.springframework.data.jpa.repository.JpaRepository;
import org.springframework.data.jpa.repository.Query;
import org.springframework.stereotype.Repository;

@Repository
public interface HobbyRepository extends JpaRepository<HobbyEntity,
Integer> {

        @Query("SELECT h.name FROM HobbyEntity h WHERE
h.personId=:personId")
        public String findByPersonId(Integer personId);

}
```

HobbyService:

```java
package com.example;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;

@Service
public class HobbyService {
```

```java
    @Autowired
    HobbyRepository hobbyRepository;

    public String findByPersonId(int personid){
        return hobbyRepository.findByPersonId(personid);
    }
    public void addHobby(HobbyEntity he){
        hobbyRepository.save(he);
    }
}
```

HobbyController:

```java
package com.example;


import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.RequestBody;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestMethod;
import org.springframework.web.bind.annotation.RestController;

@RestController
@RequestMapping(path = "/webapitwo")
public class HobbyController {

    @Autowired
    HobbyService hobbyService;

    @RequestMapping("/hobby/{personid}")
    public String findByPersonId(@PathVariable int personid){
        return hobbyService.findByPersonId(personid);
    }

    @RequestMapping(method=RequestMethod.POST, value="/hobby")
    public void addHobby(@RequestBody HobbyEntity he ) {
        hobbyService.addHobby(he);
    }

}
```

Application.properties:

```
server.port=8062
spring.application.name=RestApiTwo

spring.h2.console.enabled=true
spring.jpa.show-sql=true
```

Output:

```
GET  ∨   http://localhost:8060/webapione/person/1                Send  ∨

Params  Auth  Headers (8)  Body ●  Pre-req.  Tests  Settings              Cookies

Body ∨                              ⊕  200 OK  434 ms  221 B   Save Response ∨

Pretty   Raw   Preview   Visualize   JSON ∨   ⇄

1  {
2      "personId": 1,
3      "name": "Mahesh",
4      "age": 22,
5      "hobby": "cricket"
6  }
```