

Implementing micro services on AWS

1. App.java

```
package com.test;

import org.slf4j.Logger;

/**
 * AWS Lambda function with API GateWay trigger.
 */
public class App {

    static final Logger log = LoggerFactory.getLogger(App.class);

    public static Object handleRequest(Request request, Context context) throws ResourceNotFoundException {
        AmazonDynamoDB client = AmazonDynamoDBClientBuilder.defaultClient();
        DynamoDBMapper mapper = new DynamoDBMapper(client);
        Student student = null;
        switch (request.getHttpMethod()) {
            case "GET":
                student = mapper.load(Student.class, request.getId());
                if (student == null) {
                    throw new ResourceNotFoundException("Resource not found:" + request.getId());
                }
                return student;
            case "POST":
                student = request.getStudent();
                mapper.save(student);
                return student;
            default:
                // Throw exception if called method is not implemented
                break;
        }
        return null;
    }
}
```

2. Student.java

```
package com.test;

import com.amazonaws.services.dynamodbv2.datamodeling.DynamoDBAttribute;

@DynamoDBTable(tableName = "Students")
public class Student {

    @DynamoDBHashKey
    private int id;

    @DynamoDBAttribute
    private String name;

    public Student() {
    }

    public Student(int id, String name) {
        this.id = id;
        this.name = name;
    }

    public int getId() {
        return id;
    }

    public void setId(int id) {
        this.id = id;
    }

    public String getName() {
        return name;
    }

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

Request.java

```
package com.test;

public class Request {

    private String httpMethod;

    private int id;

    private Student student;

    public String getHttpMethod() {
        return httpMethod;
    }

    public void setHttpMethod(String httpMethod) {
        this.httpMethod = httpMethod;
    }

    public int getId() {
        return id;
    }

    public void setId(int id) {
        this.id = id;
    }

    public Student getStudent() {
        return student;
    }

    public void setStudent(Student student) {
        this.student = student;
    }

}
```

ResourceNotFoundException

```
package com.test;

public class ResourceNotFoundException extends Exception {

    private static final long serialVersionUID = 1L;

    public ResourceNotFoundException(String msg) {
        super("NotFound:" + msg);
    }
}
```

 org.omg.CosNaming.NamingContextPackage.NotFound

org.omg/CosNaming/NamingContextPackage/NotFound.java , Generated by the IDL-to-Java (portable), version "3.2" from c:/re/workspace/8-2-build-windows-amd64-cygwin/jdk8u151/9699/corba/src/share/classes/org/omg/CosNaming/nameservice.idl Tues 2017 7:35:43 PM PDT