JAXB Examples -Annotation based
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1. Model class:-

```java
package com.app;

import java.util.Map;
import java.util.Set;

import javax.xml.bind.annotation.XmlAccessType;
import javax.xml.bind.annotation.XmlAccessorType;
import javax.xml.bind.annotation.XmlAttribute;
import javax.xml.bind.annotation.XmlElement;
import javax.xml.bind.annotation.XmlElementWrapper;
import javax.xml.bind.annotation.XmlRootElement;

@XmlRootElement
@XmlAccessorType(XmlAccessType.FIELD)
public class Employee {
    //@XmlTransient
    @XmlAttribute
    private int empId;
    @XmlElement(name = "employee-name",required = true)
    private String empName;
    @XmlElement(name="employee-salary")
    private double empSal;
    @XmlElement(name = "address")
    private Address addr;
    @XmlElementWrapper(name = "projects")
    @XmlElement(name = "proj-name")
    private Set<String> projs;
```

```java
    @XmlElementWrapper(name = "proj-version")
    private Map<String,Integer> versions;

    public Map<String, Integer> getVersions() {
        return versions;
    }
    public void setVersions(Map<String, Integer>
versions) {
        this.versions = versions;
    }
    public Set<String> getProjs() {
        return projs;
    }
    public void setProjs(Set<String> projs) {
        this.projs = projs;
    }
    public Address getAddr() {
        return addr;
    }
    public void setAddr(Address addr) {
        this.addr = addr;
    }
    public int getEmpId() {
        return empId;
    }
    public void setEmpId(int empId) {
        this.empId = empId;
    }
    public String getEmpName() {
        return empName;
    }
    public void setEmpName(String empName) {
        this.empName = empName;
    }
    public double getEmpSal() {
        return empSal;
    }
    public void setEmpSal(double empSal) {
        this.empSal = empSal;
    }
    @Override
    public String toString() {
```

```java
            return "Employee [empId=" + empId + ", empName="
+ empName + ", empSal=" + empSal + ", addr=" + addr
                    + ", projs=" + projs + ", versions=" +
versions + "]";
    }

}
```

2. Test class:-

```java
package com.app;

import java.io.File;
import java.util.HashMap;
import java.util.HashSet;
import java.util.Map;
import java.util.Set;

import javax.xml.bind.JAXBContext;
import javax.xml.bind.Marshaller;
import javax.xml.bind.Unmarshaller;
/**
 *
 * @author RAGHU
 *
 */
public class MarshalTest {

    public static void main(String[] args) {
        objectToXml();
        xmlToObject();
    }

    public static void xmlToObject() {
        try {
            JAXBContext
jb=JAXBContext.newInstance(Employee.class);
            Unmarshaller um=jb.createUnmarshaller();
            Employee emp=(Employee) um.unmarshal(new
File("d:/myxmls/emp.xml"));
            System.out.println(emp);
```

```java
        } catch (Exception e) {
            e.printStackTrace();
        }
    }


    public static void objectToXml() {
        try {
            Address addr=new Address();
            addr.setAid(15);
            addr.setHno("4-44");
            addr.setLoc("HYD");
            Employee e=new Employee();
            e.setEmpId(10);
            e.setEmpName("A");
            e.setEmpSal(3.3);
            e.setAddr(addr);

            Set<String> projs=new HashSet<>();
            projs.add("HTC1");
            projs.add("HTC2");
            projs.add("HTC3");
            e.setProjs(projs);

            Map<String,Integer> map=new HashMap<>();
            map.put("V11", 1);
            map.put("AA", 2);
            map.put("BB", 3);
            e.setVersions(map);

            JAXBContext
context=JAXBContext.newInstance(Employee.class);
            Marshaller m=context.createMarshaller();
            m.marshal(e, new File("d:/myxmls/emp.xml"));
            System.out.println("done");
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

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