

## EXPERIMENT 10:-

#TITLES- create a DTD to describe a bank that has one or more customers, account or employee.

(i) Each customer has a customerId, name and address

(ii) Each account has an accountId, branchId, customerId, Account type and balance.

(iii) Each employee has a empId, name, designation, DOJ, salary and address.

#Theory:- XML DTD stands for document type definition. It's basically a set of rules that define how an XML document should be structured.

### #codes-

```
<!ELEMENT bank (customer +, account*, employee*)>
```

```
<!ELEMENT customer (customerId, name, address)>
```

```
<!ELEMENT customerId (#PCDATA)>
```

```
<!ELEMENT name (#PCDATA)>
```

```
<!ELEMENT address (#PCDATA)>
```

```
<!ELEMENT account (accountId, branchId, customerId, accountType, balance)>
```

```
<!ELEMENT accountId (#PCDATA)>
```

```
<!ELEMENT branchId (#PCDATA)>
```

```
<!ELEMENT customerId (#PCDATA)>
```

```
<!ELEMENT accountType (#PCDATA)>
```

```
<!ELEMENT balance (#PCDATA)>
```

```
<!ELEMENT employee (empId, name, designation, DOJ, salary, address)>
```

```
<!ELEMENT empId (#PCDATA)>
```

```
'98765'>98765</156>
```

```
<!ELEMENT name (#PCDATA)>
<!ELEMENT address (#PCDATA)>
<!ELEMENT designation (#PCDATA)>
<!ELEMENT doj (#PCDATA)>
<!ELEMENT salary (#PCDATA)>
<!ELEMENT address (#PCDATA)>
```

# Outputs -

Valid XML

# Conclusions -

In this experiment, we created a DTD to describe the structure of bank data and worked successfully.

<author> Laxmi Prasad > Sagar Matha </  
publish>

</book>

</book>

<isbn no="1172233"> 1172233 </isbn>

</book>

</book>

#Output:-

Valid XML

## # CONCLUSION

In this experiment, we created a DTD to describe the structure of books, including elements like title, ISBN, zipcode, author, and publish with specific occurrence constraints and attributes.



## EXPERIMENT 011:-

#TITLES - creating a DTD for corresponding XML for Books.

#Theory:- XML DTD stands for document type definition. It's basically a set of rules that define how an XML document should be structured.

#Code:-

```
<!ELEMENT books (book+)>
<!ELEMENT book (title?, isbn+, (zipcode, author?, publish?))>
<!ELEMENT title nname CDATA #IMPLIED>
<!ELEMENT isbn n+ (#PCDATA)>
<!ATTLIST isbn no CDATA #REQUIRED>
<!ELEMENT zipcode (#PCDATA)>
<!ATTLIST zipcode zname CDATA "0123456789">
<!ELEMENT author (#PCDATA)>
<!ELEMENT publish (#PCDATA)>
<!ATTLIST publish year CDATA #FIXED "1995">
```

books.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE books SYSTEM "books.dtd">
<books>
  <book>
    <title nname="XML">Learning XML</title>
    <isbn no="1234567890">1234567890</isbn>
    <zipcode zname="123456">123456</zipcode>
    <publish year="995">pearson</publish>
  </book>
</books>
<book>
  <title>MUNA MADAN</title>
  <isbn no="98765">98765</isbn>
```