

**This document covers the following issues/usecases.**

1. Design Issues Identified in xsd.
2. Invalid input xml file data scenarios
  - a. Validation at request level i.e.,
    - ◆ Validation of xml against the xsd
    - ◆ Parsing errors in the xml
  - b. Validation at business level.
3. Successful use cases.

### **Design Issues Identified in xsd:**

**Issue 1:** Accepting the input xml without loop details.(as per xsd )

```
<xs:complexType name="powerUpsType">
  <xs:sequence>
    <xs:element type="loopType" name="loop" maxOccurs="unbounded" minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
```

If numberofloops = 2, and no powerup data is given, then the entire logic fails.

**Issue 1:** number attribute in lane is optional.(as per xsd )

```
<xs:complexType name="laneType">
  <xs:simpleContent>
    <xs:extension base="xs:integer">
      <xs:attribute type="xs:integer" name="number" use="optional"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
```

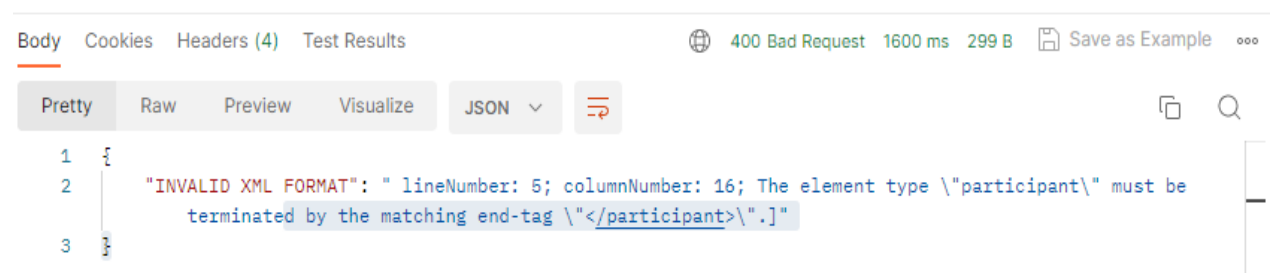
If number attribute is optional, then mapping between the lane numbers in participant and lane numbers in loop details will be difficult. So we have to assume it is sequential which will not be true in all cases.

### **Invalid input xml file data scenarios:**

Validation at request level :

**Use case 1:** Parsing errors in the input xml.

(Invalid syntax in the input xml)



### Use case 2:

Validation of input xml against the xsd. (lane details min 4 )

```
Body Cookies Headers (4) Test Results 400 Bad Request 14.08 s 342 B Save as Example
Pretty Raw Preview Visualize JSON
1
2 "xml Validation against xsd failed": " The content of element 'loop' is not complete. 'lane' is
3 expected to occur a minimum of '4' times. One more instance is required to satisfy this
   constraint.]"
```

### Use case 3:

Validation of input xml against the xsd. (Participant details min 4 )

```
Body Cookies Headers (4) Test Results 400 Bad Request 5.22 s 354 B Save as Example
Pretty Raw Preview Visualize JSON
1
2 "xml Validation against xsd failed": " The content of element 'startList' is not complete.
3 'participant' is expected to occur a minimum of '4' times. One more instance is required to
   satisfy this constraint.]"
```

Validation at business level:

### Use case 4:

loop details data should be greater than or equal to the number of loops.

Say, `<numberOfLoops>3</numberOfLoops>`

And powerup details is less.

```
<powerUps>
  <loop number="1">
    <lane number="1">2</lane>
    <lane number="2">2</lane>
    <lane number="3">3</lane>
    <lane number="4">1</lane>
  </loop>
  <loop number="2">
    <lane number="1">1</lane>
    <lane number="2">3</lane>
    <lane number="3">6</lane>
    <lane number="4">1</lane>
  </loop>
</powerUps>
```

```
Body Cookies Headers (4) Test Results 400 Bad Request 6.90 s 238 B Save as Example
Pretty Raw Preview Visualize JSON
1
2 "inputXML Data Errors ": "[Loop details(powerup data) do not match with the number of loops]"
3
```

**Use case 5:** Lane numbers in participantType should be unique.

Say, <startList>

```
<participant>
  <lane>1</lane>
  <name>TIMETOBE LUCKY</name>
  <baseSpeed>10</baseSpeed>
</participant>
<participant>
  <lane>1</lane>
  <name>CARGO DOOR</name>
  <baseSpeed>10</baseSpeed>
</participant>
```



**Use case 6:** Lane numbers in each loop should be unique.

Say,

```
<powerUps>
<loop number="1">
  <lane number="1">2</lane>
  <lane number="1">2</lane>
  <lane number="3">3</lane>
  <lane number="4">1</lane>
</loop>
```



**Use case 7:** Lane numbers in all loopType should be same.

Say,

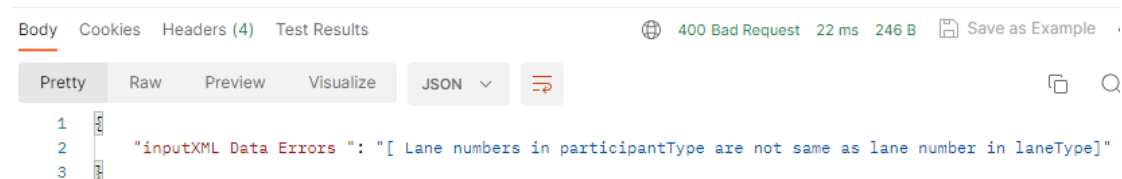
```
<loop number="1">
  <lane number="1">4</lane>
  <lane number="2">2</lane>
  <lane number="3">3</lane>
  <lane number="4">1</lane>
</loop>
<loop number="2">
  <lane number="1">1</lane>
  <lane number="2">3</lane>
  <lane number="5">6</lane>
  <lane number="4">1</lane>
</loop>
```



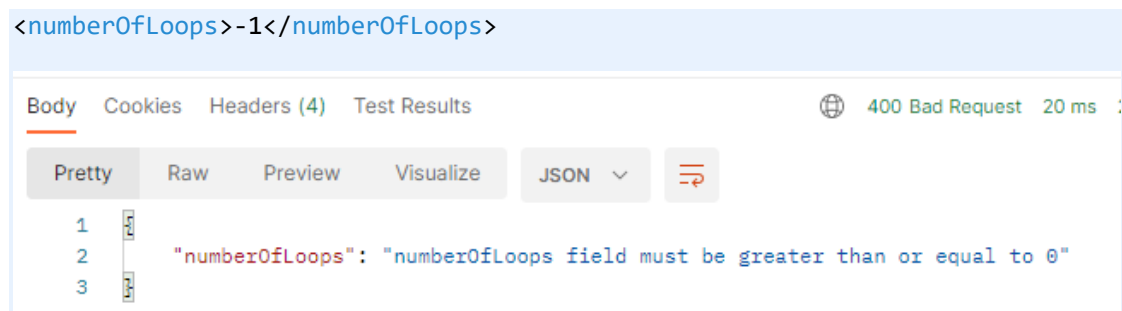
**Use case 8:** Lane numbers in participantType and lane numbers in laneType should be same.

```
<participant>
  <lane>1</lane>
  <name>TIMETOBE LUCKY</name>
  <baseSpeed>10</baseSpeed>
</participant>
<participant>
  <lane>2</lane>
  <name>CARGO DOOR</name>
  <baseSpeed>10</baseSpeed>
</participant>
  <participant>
    <lane>3</lane>
    <name>HERCULES BOKO</name>
    <baseSpeed>10</baseSpeed>
  </participant>

<loop number="1">
  <lane number="1">4</lane>
  <lane number="2">2</lane>
  <lane number="4">1</lane>
</loop>
```



**Use case 9:** numberOfLoops should be greater than or equal to 0



## Successful cases:

### Usecase 10: Valid input .(input1.xml)

Body Cookies Headers (5) Test Results

Pretty

Raw

Preview

Visualize

JSON



```
1  [
2    {
3      "position": 1,
4      "horse": "TIMETOBE LUCKY"
5    },
6    {
7      "position": 2,
8      "horse": "WAIKIKI SILVIO"
9    },
10   {
11     "position": 3,
12     "horse": "HERCULES BOKO"
13   }
14 ]
```

### Use case 11: Valid input with tie.

Body Cookies Headers (5) Test Results

Pretty

Raw

Preview

Visualize

JSON



```
1  [
2    {
3      "position": 1,
4      "horse": "HERCULES BOKO"
5    },
6    {
7      "position": 2,
8      "horse": "TIMETOBE LUCKY"
9    },
10   {
11     "position": 2,
12     "horse": "CARGO DOOR"
13   },
14   {
15     "position": 3,
16     "horse": "WAIKIKI SILVIO"
17   }
18 ]
```