

QUESTION1:

```
C:\Users\Dhruv>curl -X "POST" "https://localhost:7292/api/J1/Delivedroid" -d "Collisions=2&Deliveries=10" -H "Content-Type:application/x-www-form-urlencoded"
980
C:\Users\Dhruv>
```

1. Missing Headers

```
C:\Users\Dhruv>curl -X "POST" "https://localhost:7292/api/J1/Delivedroid" -d "Collisions=2&Deliveries=10"
980
```

2. Data Types (Float, string)

```
C:\Users\Dhruv>curl -X "POST" "https://localhost:7292/api/J1/Delivedroid" -d "Collisions=2&Deliveries=10.5" -H "Content-Type:application/x-www-form-urlencoded"
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":400,"errors":{"Deliveries":["The value '10.5' is not valid."]},"traceId":"00-e277bea85d4bbab6642024bab7ba6c54-3fba65fea4f968a4-00"}
C:\Users\Dhruv>curl -X "POST" "https://localhost:7292/api/J1/Delivedroid" -d "Collisions=2&Deliveries=abc" -H "Content-Type:application/x-www-form-urlencoded"
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":400,"errors":{"Deliveries":["The value 'abc' is not valid."]},"traceId":"00-948e7509a84566b9bd81ce89cca4c8f8-22f6578aa86be2da-00"}
```

3. Empty Data Values

```
C:\Users\Dhruv>curl -X "POST" "https://localhost:7292/api/J1/Delivedroid" -d "Collisions=&Deliveries=" -H "Content-Type:application/x-www-form-urlencoded"
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":400,"errors":{"Collisions":["The value '' is invalid."],"Deliveries":["The value '' is invalid."]},"traceId":"00-e447f51ecf53d17f17156720291903e7-4de7f20cd5724c8f-00"}
C:\Users\Dhruv>
```

4. Request Type

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J1/Delivedroid" -d "Collisions=&Deliveries=" -H "Content-Type:application/x-www-form-urlencoded"
C:\Users\Dhruv>
```

5. Missing Collisions and Deliveries Value

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J1/Delivedroid" -H "Content-Type:application/x-www-form-urlencoded"
```

6. Negative Collisions and Deliveries Value

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J1/Delivedroid" -d "Collisions=-10&Deliveries=-6" -H "Content-Type:application/x-www-form-urlencoded"
C:\Users\Dhruv>
```

QUESTION2:

<https://cemc.uwaterloo.ca/sites/default/files/documents/2020/2020CCCJrProblemSet.html>

J1: Dog Treats

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J1/BarleyHappiness?SmallTreats=2&MediumTreats=3&LargeTreats=1"
happy
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J1/BarleyHappiness?SmallTreats=2&MediumTreats=3&LargeTreats=0"
sad
```

1. Empty Data Values

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J1/BarleyHappiness?SmallTreats=&MediumTreats=&LargeTreats="
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":400,"errors":{"LargeTreats":["The value '' is invalid."],"SmallTreats":["The value '' is invalid."],"MediumTreats":["The value '' is invalid."]},"traceId":"00-a67b19e0e90630dbe12cb0e604f0ad46-d4beaec459d77191-00"}
C:\Users\Dhruv>
```

2. Data Types (Float, String)

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J1/BarleyHappiness?SmallTreats=&MediumTreats=&LargeTreats="
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":
400,"errors":{"LargeTreats":["The value '' is invalid."],"SmallTreats":["The value '' is invalid."],"MediumTreats":["The
value '' is invalid."]},"traceId":"00-a67b19e0e90630dbe12cb0e604f0ad46-d4beaec459d77191-00"}
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J1/BarleyHappiness?SmallTreats=0.4&MediumTreats=0.5&LargeTreats
=0.4"
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":
400,"errors":{"LargeTreats":["The value '0.4' is not valid."],"SmallTreats":["The value '0.4' is not valid."],"MediumTre
ats":["The value '0.5' is not valid."]},"traceId":"00-65ac8c371f69f599872c7b57e693805d-b13becfc20fa662d-00"}
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J1/BarleyHappiness?SmallTreats=abc&MediumTreats=abc&LargeTreats
=abc"
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":
400,"errors":{"LargeTreats":["The value 'abc' is not valid."],"SmallTreats":["The value 'abc' is not valid."],"MediumTre
ats":["The value 'abc' is not valid."]},"traceId":"00-315fd695f858dd95bdce9c41e29c6453-2f253ae471027fe8-00"}
C:\Users\Dhruv>
```

3. Negative Treat Values

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J1/BarleyHappiness?SmallTreats=-2&MediumTreats=-3&LargeTreats=-
4"
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":
400,"errors":{"LargeTreats":["The value '-4' is not valid."],"MediumTreats":["The value '-3' is not valid."],"SmallTreats
":["The value '-2' is not valid."]},"traceId":"00-315fd695f858dd95bdce9c41e29c6453-2f253ae471027fe8-00"}
C:\Users\Dhruv>
```

4. Request Type

```
C:\Users\Dhruv>curl -X "POST" "https://localhost:7292/api/J1/BarleyHappiness?SmallTreats=2&MediumTreats=3&LargeTreats=0"
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":
400,"errors":{"LargeTreats":["The value '0' is not valid."],"MediumTreats":["The value '3' is not valid."],"SmallTreats
":["The value '2' is not valid."]},"traceId":"00-315fd695f858dd95bdce9c41e29c6453-2f253ae471027fe8-00"}
C:\Users\Dhruv>
```

QUESTION3:

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J2/ChiliPeppers?Ingredients=Poblano,Cayenne,Thai,Poblano"
118000
C:\Users\Dhruv>
```

1. Out of table ingredient name

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J2/ChiliPeppers?Ingredients=abc"
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":
400,"errors":{"Ingredients":["The Ingredients field is required."]},"traceId":"00-3d96e850ff3025153b094d030beb4f71-a3ed0
fb81c0ef05d-00"}
C:\Users\Dhruv>
```

2. No Ingredient Argument

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J2/ChiliPeppers"
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":
400,"errors":{"Ingredients":["The Ingredients field is required."]},"traceId":"00-3d96e850ff3025153b094d030beb4f71-a3ed0
fb81c0ef05d-00"}
C:\Users\Dhruv>
```

3. Request Type

```
C:\Users\Dhruv>curl -X "POST" "https://localhost:7292/api/J2/ChiliPeppers?Ingredients=Poblano,Cayenne,Thai,Poblano"
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":
400,"errors":{"Ingredients":["The Ingredients field is required."]},"traceId":"00-3d96e850ff3025153b094d030beb4f71-a3ed0
fb81c0ef05d-00"}
C:\Users\Dhruv>
```

4. Data Types(numeric)

```
C:\Users\Dhruv>curl -X "POST" "https://localhost:7292/api/J2/ChiliPeppers?Ingredients=123"
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":
400,"errors":{"Ingredients":["The Ingredients field is required."]},"traceId":"00-3d96e850ff3025153b094d030beb4f71-a3ed0
fb81c0ef05d-00"}
C:\Users\Dhruv>curl -X "POST" "https://localhost:7292/api/J2/ChiliPeppers?Ingredients=123.4"
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":
400,"errors":{"Ingredients":["The Ingredients field is required."]},"traceId":"00-3d96e850ff3025153b094d030beb4f71-a3ed0
fb81c0ef05d-00"}
C:\Users\Dhruv>
```

QUESTION 4:

<https://cemc.uwaterloo.ca/sites/default/files/documents/2020/2020CCCJrProblemSet.html>

J2: Epidemiology

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J2/Epidemiology?P=750&N=1&R=5"
4
C:\Users\Dhruv>
```

1. Empty P, N, R

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J2/Epidemiology?P=&N=&R="
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":400,"errors":{"N":["The value '' is invalid."],"P":["The value '' is invalid."],"R":["The value '' is invalid."]},"traceId":"00-3fbb6b432395ae63f8f5adbe07601b8e-301174a51203b5c8-00"}
```

2. Negative P, N, R values

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J2/Epidemiology?P=-750&N=-1&R=-5"
0
C:\Users\Dhruv>
```

3. Request Type

```
C:\Users\Dhruv>curl -X "POST" "https://localhost:7292/api/J2/Epidemiology?P=750&N=1&R=5"
C:\Users\Dhruv>
```

4. Missing P, N, R parameter values

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J2/Epidemiology"
```

QUESTION 5:

<https://cemc.uwaterloo.ca/sites/default/files/documents/2023/2023CCCJrProblemSet.html>

J3: Special Event

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J3/SpecialEvent?N=3&availabilities=Y..YY&availabilities=YY.YY&availabilities=..YYY"
4, 5
C:\Users\Dhruv>
```

1. Greater N value than availabilities entered

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J3/SpecialEvent?N=5&availabilities=Y..YY&availabilities=YY.YY&availabilities=..YYY"
```

(Server crashed)

2. Less N value than availabilities entered

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J3/SpecialEvent?N=2&availabilities=Y..YY&availabilities=YY.YY&availabilities=..YYY"
4, 5
C:\Users\Dhruv>
```

3. String N value

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J3/SpecialEvent?N=three&availabilities=Y..YY&availabilities=YY.YY&availabilities=..YYY"
{"type":"https://tools.ietf.org/html/rfc9110#section-15.5.1","title":"One or more validation errors occurred.,"status":400,"errors":{"N":["The value 'three' is not valid."]},"traceId":"00-ba7c6743cba48de7033ed26e466483e6-595bd082c8f4bb44-00"}
C:\Users\Dhruv>
```

4. Empty availabilities

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J3/SpecialEvent?N=3&availabilities=&availabilities=&availabilities="
```

(Server crashed)

5. All open availability

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J3/SpecialEvent?N=3&availabilities=YYYYY&availabilities=YYYYY&availabilities=YYYYY"
1, 2, 3, 4, 5
C:\Users\Dhruv>
```

6. All busy (No availability)

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J3/SpecialEvent?N=3&availabilities=.....&availabilities=.....&availabilities=....."
C:\Users\Dhruv>
```

7. More days entered than expected (5)

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J3/SpecialEvent?N=3&availabilities=Y..YY&availabilities=YY.YY&availabilities=YYYYYYYYYYYYYYYYYY"
1, 4, 5
C:\Users\Dhruv>
```

8. Less days entered than expected (5)

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J3/SpecialEvent?N=3&availabilities=Y..YY&availabilities=YY.YY&availabilities=Y"
-
C:\Users\Dhruv>
```

(Server crashed)

9. Missing availabilities argument

```
C:\Users\Dhruv>curl -X "GET" "https://localhost:7292/api/J3/SpecialEvent?N=3"
-
C:\Users\Dhruv>
```

(Server crashed)