Django Serialization Notes

1. Django `serializers.serialize`

2. কাজ: Django model instances বা QuerySet কে JSON/XML/YAML এ রূপান্তর করা।

3. সিনট্যাক্স:

```python
from django.core import serializers

students = Student.objects.all()  # QuerySet
students_json = serializers.serialize('json', students, indent=2)
```

• Important Points:
• শুধু QuerySet বা Model instance list serialize করা যায়। সাধারণ Python string বা dict নয়।
• `indent` optional, pretty-print করার জন্য।
• Output হয় string।

• যদি Python object হিসেবে ব্যবহার করতে চাও, `json.loads()` ব্যবহার করতে হবে।

• Example Output (JSON):

[ { "model": "app_name.student", "pk": 1, "fields": { "name": "Faruk", "age": 20 } }, { "model": "app_name.student", "pk": 2, "fields": { "name": "Ahmed", "age": 21 } } ]

• Convert to Python object:

```python
import json
students_list = json.loads(students_json)
```

1. Python `json` Module

2. কাজ: Python primitive data (dict, list, string, number, bool) কে JSON string এ রূপান্তর করা।

3. সিনট্যাক্স:

```python
import json

data = "FARUK"  # Python string
json_data = json.dumps(data, indent=2)
print(json_data)
```

• Output:

"FARUK"

- Example with dict:

```
data = {"name": "Faruk", "age": 20}
json_data = json.dumps(data, indent=2)
```

Output: { "name": "Faruk", "age": 20 }

- Convert JSON string back to Python object:

```
python_data = json.loads(json_data)
```

1. Quick Rule of Thumb

| Data Type | Serializer to Use |
|---|---|
| Django Model / QuerySet | `django.core.serializers.serialize` |
| Python dict / list / string / number | `json.dumps()` |