

Design a gRPC Protobuf task list – Protobuf OrderMessage

```
syntax = "proto3";
```

```
message OrderMessage {  
    enum Status {  
        Queued = 0;  
        Processing = 1;  
        Completed = 2;  
        Failed = 3;  
    }  
}
```

```
    enum Equipment {  
        Desktop = 0;  
        Keyboard = 1;  
        Mouse = 2;  
        Webcam = 3;  
        Monitor = 4;  
    }  
}
```

Design a gRPC Protobuf task list – Protobuf OrderService

Cont...

```
message OrderMessage {
```

```
    string order_id =1;
```

```
    string created_by =2;
```

```
    string status = 3;
```

```
    string created_at =4;
```

```
    repeated Equipment equipment = 5;
```

```
}
```

```
Service OrderService {
```

```
    rpc Create(OrderMessage) returns (OrderMessage);
```

```
}
```

gRPC Protobuf – Comparison of tradeoffs with using protobufs versus JSON

Protobuf Pros:

- Small payload
- Typesafe
- HTTP/2 protocol

Protobuf Cons:

- Strict

JSON Pros:

- Flexible
- Universal

JSON Cons:

- Higher payload
- Needs 3rd party libs for type checking (Python -> marshmallow)