Web Development

Web App

= Frontend + Backend + Database

www.facebook.com/profile

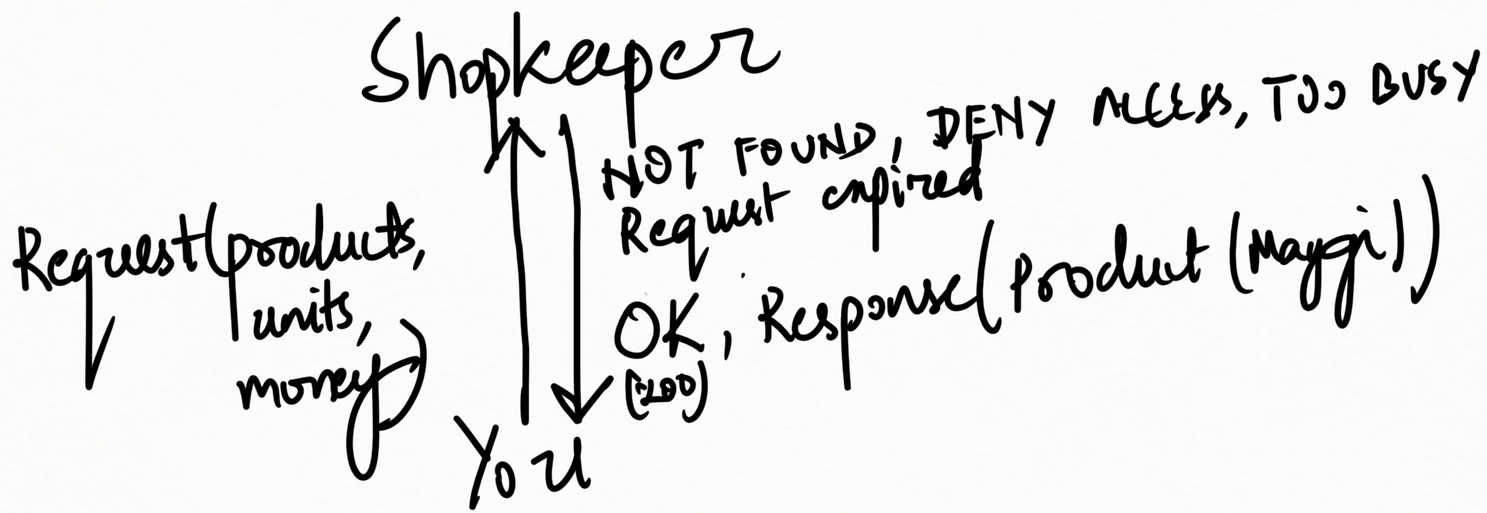
www.facebook.com/feed

HTTP Methods

- GET
- POST
- PUT
- PATCH
- DELETE

GET Method/Verb

CRUD : Read/Retrieve - SELECT query

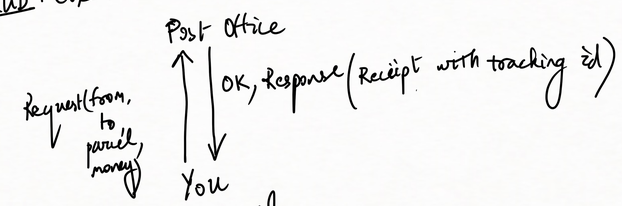


Example - You want a 4 pack maggi.

Objective - GET maggi

POST

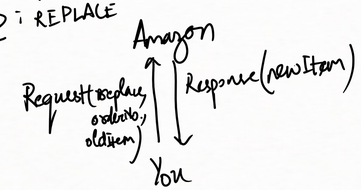
CRUD: Create - Insert into `shipments`



Objective: Post the parcel

PUT (Replace)

CRUD : REPLACE



Objective: Replace the phone

PATCH (Modify / Update)

CRUD : Update - Update

Service Center

Request (oldItem, part spec)

Response (Updated item)

You

Objective: Fix the smartphone

Rest API

DELETE

CRUD: Delete - Delete from Instagram

Request(id) ↑ ↓ Response (confirmation)

You

Objective: Delete your insta profile (Don't try this at home)

REST

Write a basic Java program with 5 methods:-

i) doGet(String request)
ii) doPost(String request)
iii) doPatch(String request)
iv) doDelete(String request)
v) service(String request, String reqMethod)

Boolean

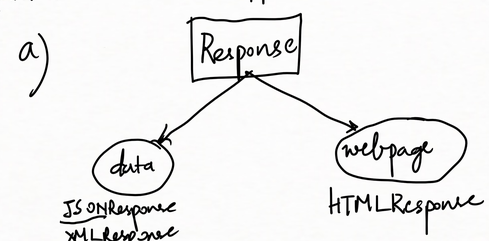
"GET" "POST" "PATCH" "DELETE"

main(){
service("Get today's temperature", "GET");
}

doGet(request)

Entities in Internet Applications

a)



JSONResponse
XMLResponse

HTMLResponse

```
class Response{
    int statuscode;
    string data;
    :
}
```

b)

```
class Request{
    String method;
    String source;
    String type;
    int zip;
    int version;
    getMethod();
    setMethod();
}
```

Browser → setMethod();

getMethod() → Server

Rules of REST API

1) Response Entity should be data response.

2) Encourages you to use all the HTTP methods.
HTML can send only GET & POST requests. REST api encourages to use AJAX for sending requests.

3) Google { search results : ["www.abc.com", "www.def.com", "www.xyz.com"] }

Amazon { order_status : confirmed,
order_number : 123,
order_date : 26-03-2022 }

Responses can be different. The FE has to know about the response format beforehand. The FE has to know the keys, & the nature of values.

Frontend

www.fb.com/profile

GET - View profile
www.fb.com/profile?id=223

DELETE - Delete profile
www.fb.com/profile?id=456

PATCH - Update profile details
www.fb.com/profile?id=789&name=Akash

www.fb.com/feed (will not activate ProfileServlet)

Links

Backend

```
@RequestMapping("www.fb.com/profile");
class ProfileServlet {
    @GetMapping("/")
    Response doGet(Request req){
        User user = "SELECT * from users
                     WHERE id = req.param(id)
        return response(user);
    }
    @PostMapping("/")
    Response doPost(Request req){
    }
    @PatchMapping("/")
    Response doPatch(Request req){
    }
    Request doDelete(req){
    }
}
```