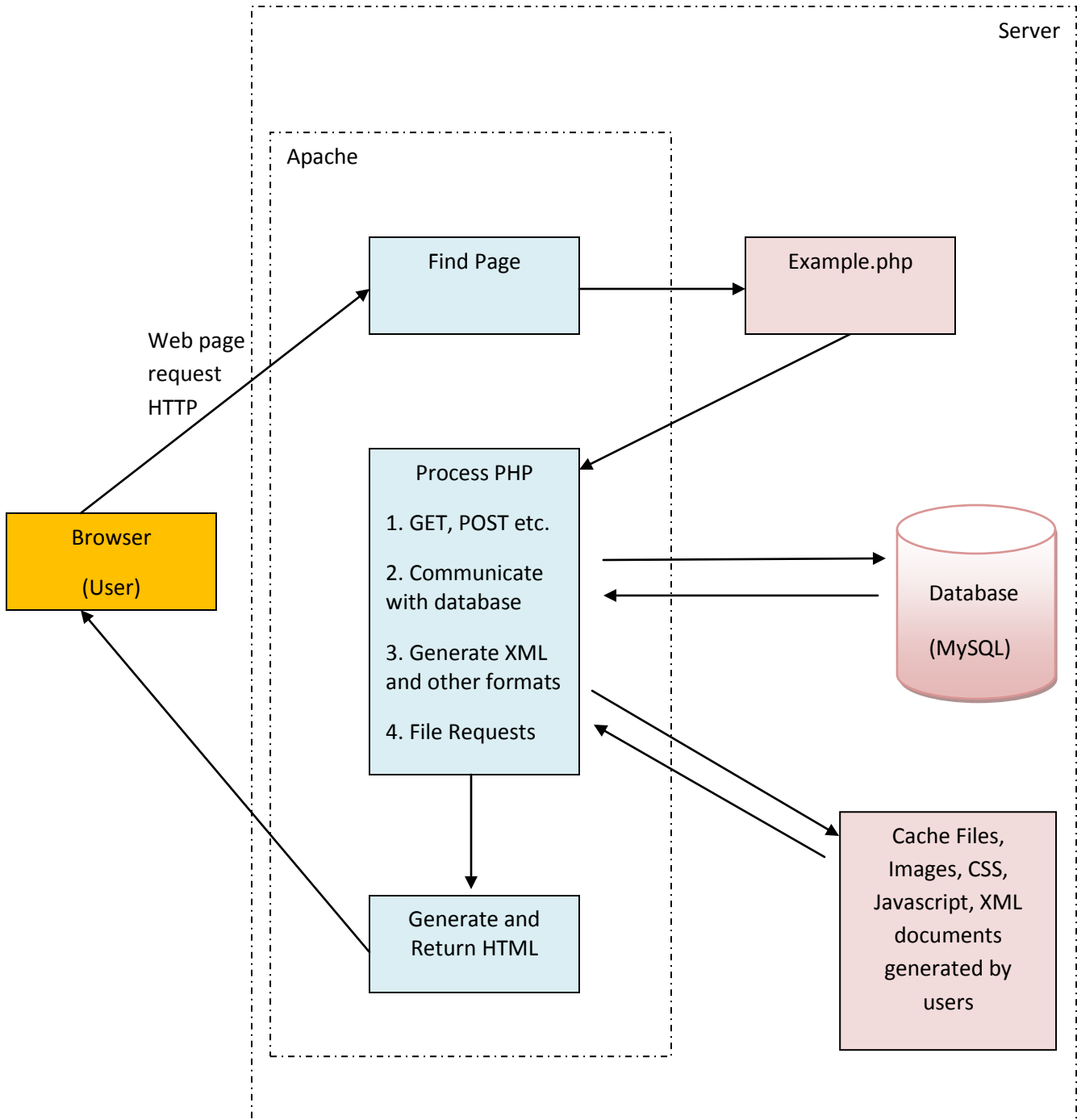# Architecture Diagram: (Materials Database Website)

Architecture Flowchart:

Browser (User)

HTTP Request

Fetch File

Search Cache File (if Cache File present)

File found?

Return HTML to user

Y

N

Search Server

File found? Any Other Request?

404 Error

Yes, with no other requests

Yes, but with other requests

```
┌─────────────────────────┐
│   Process PHP Request    │
└─────────────────────────┘
             │
             ▼
          ╱─────╲                                    Generate
        ╱         ╲                                    XML
      ╱             ╲              ┌──────────────────────────────┐
    ╱   What is the   ╲            │ Retrieve information         │
    ╲   type of       ╱──────────▶ │ from database;               │
    ╲   request?     ╱             │ Generate XML; store          │
      ╲            ╱               │ XML on server;               │
        ╲        ╱                 │ Provide link to user;        │
          ╲────╱                   │ Store link in user           │
             │                     │ database tables              │
             │  GET, POST          └──────────────────────────────┘
             │   etc.                      │        ▲
             ▼                             ▼        │
  ┌─────────────────────┐                ┌──────────────┐
  │ User Form           │                │   Database   │
  │ Submission;         │◀──────────────▶│              │
  │ New/Edit Material;  │                │   (MySQL)    │
  │ Change/ Read from   │                └──────────────┘
  │ database; Return    │
  │ HTML to User        │           (User, Login, Materials
  └─────────────────────┘           information; Foreign key
             │                      relationships; Links to XML
             ▼                      documents on file server;
  ┌─────────────────────┐           Has its own Query cache,
  │ Clear corresponding │           parsing, optimization etc;
  │ Cache File entries  │           Full-text search possible)
  └─────────────────────┘

   Return
   HTML to
    user

  ┌─────────────────────┐
  │   Browser (User)     │◀────────────
  └─────────────────────┘      Return File
                                 to user
```