

# MongoDB Error & Status Codes – Detailed Developer Guide

This document explains commonly encountered MongoDB error codes, their causes, real-world scenarios, and recommended handling strategies when building backend applications using Flask, FastAPI, or other REST frameworks.

## 1. Common MongoDB Error Codes

Error Code	Error Name	Description	Common Cause	Recommended Handling
2	BadValue	Invalid value or argument	Wrong query or invalid data type	Validate input before query
13	Unauthorized	Permission denied	Missing role or privilege	Return HTTP 401/403
18	AuthenticationFailed	Authentication failed	Invalid credentials	Verify username/password
26	NamespaceNotFound	Collection not found	Wrong collection name	Handle as 404 Not Found
50	ExceededTimeLimit	Query timeout	Long-running query	Optimize query / add index
59	CommandNotFound	Invalid MongoDB command	Unsupported or misspelled command	Correct command usage
66	ImmutableField	Immutable field update attempt	Updating _id field	Remove immutable field
85	IndexOptionsConflict	Index conflict	Duplicate index creation	Drop or modify index
11000	DuplicateKeyError	Duplicate unique key	Unique index violation	Return HTTP 409 Conflict
121	DocumentValidationFailure	Schema validation failed	Document violates schema	Fix request payload

## 2. MongoDB Operation Status Indicators

MongoDB does not use HTTP status codes internally. Instead, it returns operation result objects that indicate success or failure.

Operation	Success Indicator	Failure Indicator
Insert	inserted_id present	DuplicateKeyError / WriteError
Find	Cursor with documents	Empty cursor / exception
Update	matched_count > 0	matched_count = 0
Delete	deleted_count > 0	deleted_count = 0

## 3. HTTP Status Code Mapping (MongoDB + REST API)

HTTP Code	Meaning	Usage Scenario
200	OK	Successful GET / UPDATE
201	Created	Document inserted
400	Bad Request	Invalid input / JSON
401	Unauthorized	Authentication failed
403	Forbidden	Permission denied
404	Not Found	Record not found
409	Conflict	Duplicate key error
422	Unprocessable Entity	Validation error
500	Internal Server Error	Database failure

Note: Always log full MongoDB errors internally and expose only sanitized error messages to API consumers.