

Error Codes Catalog

Bilko Error Codes Catalog

Project: Bilko Version: 1.0 Date: 2026-02-24 Status: Specification Applies to: apps/api/ — all modules

Overview

All Bilko API errors follow a consistent JSON structure. Every error response includes:

- An HTTP status code
- A machine-readable BILK0-XXXX error code
- A human-readable message (in the organization's configured language)
- Optional field-level details for validation errors

Error code ranges by module:

Range	Module
BILK0-1xxx	Authentication
BILK0-2xxx	Organizations
BILK0-3xxx	Invoices
BILK0-4xxx	Expenses
BILK0-5xxx	Banking
BILK0-6xxx	Reports
BILK0-7xxx	Contacts
BILK0-8xxx	Settings & Accounts
BILK0-9xxx	General / Cross-cutting

Error Response Schema

All error responses use this structure:

```
interface ErrorResponse {  
  error: {  
    code: string // e.g., "BILK0-1001"  
    message: string // Human-readable, localized  
    details?: Record<string, string[]> // Field-level validation errors (422 only)  
    requestId?: string // Trace ID for support (production)  
  }  
}
```

Examples:

```
// Authentication error  
{  
  "error": {  
    "code": "BILK0-1001",  
    "message": "Pogrešan email ili lozinka.",  
    "requestId": "req_01H9X3K5P2M7N8Q4R6S9T0V1W2"  
  }  
}  
  
// Validation error (422) with field details  
{  
  "error": {  
    "code": "BILK0-9003",  
    "message": "Validacija nije uspjela.",  
    "details": {  
      "email": ["Email adresa nije ispravna."],  
      "password": ["Lozinka mora imati najmanje 8 znakova.", "Lozinka mora sadržavati barem jedan broj."]  
    },  
    "requestId": "req_01H9X3K5P2M7N8Q4R6S9T0V1W2"  
  }  
}
```

HTTP Status Codes

HTTP Code	Meaning	When Used
200 OK	Successful read or update	GET, PUT, PATCH
201 Created	Resource successfully created	POST (creates new record)
204 No Content	Successful deletion	DELETE, POST /logout
400 Bad Request	Request is well-formed but semantically invalid	Business rule violations (not validation)
401 Unauthorized	Missing, expired, or invalid authentication	No token, expired JWT, wrong credentials
403 Forbidden	Authenticated but insufficient permissions	Role lacks access to endpoint or action
404 Not Found	Resource does not exist within organization scope	Record not found or belongs to different org
409 Conflict	Resource already exists	Duplicate email, duplicate invoice number
413 Payload Too Large	Upload exceeds size limit	File uploads over 10MB (receipt) or 5MB (CSV)
422 Unprocessable Entity	Zod schema validation failed	Invalid field types, missing required fields
429 Too Many Requests	Rate limit exceeded	Auth: 5/min; writes: 10-50/min; reads: 100/min
500 Internal Server Error	Unexpected server-side error	Unhandled exception, DB error
503 Service Unavailable	External dependency unavailable	SendGrid, ECB API, Cloudflare R2 down

Retry Guidance

Error Code	HTTP	Retry?	Strategy
BILK0-1003	401	Yes	Refresh access token via POST /auth/refresh, then retry
BILK0-9005	429	Yes	Wait until Retry-After header value (seconds), then retry
BILK0-9006	500	Yes	Exponential backoff: 1s, 2s, 4s — max 3 retries

Error Code	HTTP	Retry?	Strategy
BILKO-9007	503	Yes	Exponential backoff: 2s, 5s, 10s — max 3 retries
All 4xx except above	—	No	Fix request before retrying — these are client errors
BILKO-1001	401	No	Wrong credentials — do not retry automatically
BILKO-3011	500	Yes	SendGrid transient failure — retry once after 5s

Retry-After header: Always present on 429 responses. Value is seconds to wait.

Module: Authentication (1xxx)

BILKO-1001 — Invalid Credentials

Field	Value
HTTP	401
Trigger	POST /auth/login — email not found or password does not match bcrypt hash
Retry	No

```
{
  "error": {
    "code": "BILKO-1001",
    "message": "Pogrešan email ili lozinka."
  }
}
```

BILKO-1002 — Account Disabled

Field	Value
HTTP	403
Trigger	POST /auth/login — user has isActive = false
Retry	No — contact support

```
{
  "error": {
    "code": "BILKO-1002",
    "message": "Vaš nalog je deaktiviran. Kontaktirajte podršku."
  }
}
```

BILKO-1003 — Access Token Expired

Field	Value
HTTP	401
Trigger	Any authenticated request — JWT <code>exp</code> claim is in the past
Retry	Yes — refresh token first via <code>POST /auth/refresh</code> , then retry original request

```
{
  "error": {
    "code": "BILKO-1003",
    "message": "Sesija je istekla. Osvježite token."
  }
}
```

BILKO-1004 — Invalid Token

Field	Value
HTTP	401
Trigger	Any authenticated request — JWT signature invalid or malformed
Retry	No — re-authenticate

```
{
  "error": {
    "code": "BILKO-1004",
    "message": "Token nije ispravan. Molimo prijavite se ponovo."
  }
}
```

BILKO-1005 — No Authentication Token

Field	Value
HTTP	401
Trigger	Any authenticated endpoint called without <code>Authorization: Bearer <token></code> header
Retry	No — add token

```
{
  "error": {
    "code": "BILKO-1005",
    "message": "Autentifikacija je obavezna."
  }
}
```

BILKO-1006 — Refresh Token Invalid or Expired

Field	Value
HTTP	401
Trigger	<code>POST /auth/refresh</code> — cookie missing, token blacklisted, or expired
Retry	No — force full re-login

```
{
  "error": {
    "code": "BILKO-1006",
    "message": "Sesija je istekla. Molimo prijavite se ponovo."
  }
}
```

BILKO-1007 — Auth Rate Limit Exceeded

Field	Value
-------	-------

HTTP	429
Trigger	POST /auth/login or POST /auth/register — 5+ requests in 60 seconds from same IP
Retry	Yes — after Retry-After header value (900 seconds / 15 min lockout)

```
{
  "error": {
    "code": "BILKO-1007",
    "message": "Previše pokušaja prijave. Pokušajte ponovo za 15 minuta."
  }
}
```

Response headers:

```
Retry-After: 900
X-RateLimit-Limit: 5
X-RateLimit-Remaining: 0
X-RateLimit-Reset: 1740399600
```

BILKO-1008 — Email Already Registered

Field	Value
HTTP	409
Trigger	POST /auth/register — email already exists in users table
Retry	No — use different email or reset password

```
{
  "error": {
    "code": "BILKO-1008",
    "message": "Email adresa je već registrirana."
  }
}
```

BILKO-1009 — Weak Password

Field	Value
-------	-------

HTTP	422
Trigger	<code>POST /auth/register</code> or <code>PUT /auth/password</code> — password fails strength requirements
Retry	No — fix password

```
{
  "error": {
    "code": "BILKO-1009",
    "message": "Lozinka ne zadovoljava sigurnosne zahtjeve.",
    "details": {
      "password": [
        "Lozinka mora imati najmanje 8 znakova.",
        "Lozinka mora sadržavati barem jedno veliko slovo.",
        "Lozinka mora sadržavati barem jedan broj."
      ]
    }
  }
}
```

BILKO-1010 — Two-Factor Authentication Required

Field	Value
HTTP	403
Trigger	<code>POST /auth/login</code> — user has <code>twoFactorEnabled = true</code> , 2FA code not provided
Retry	No — submit TOTP code via <code>POST /auth/verify-2fa</code>

```
{
  "error": {
    "code": "BILKO-1010",
    "message": "Potrebna je dvofaktorska autentifikacija.",
    "details": {
      "requiresTwoFactor": ["true"]
    }
  }
}
```

BILKO-1011 — Invalid 2FA Code

Field	Value
HTTP	401
Trigger	POST /auth/verify-2fa — TOTP code incorrect or expired (outside 30s window)
Retry	No — request new code from authenticator app

```
{
  "error": {
    "code": "BILKO-1011",
    "message": "Kod za verifikaciju nije ispravan ili je istekao."
  }
}
```

BILKO-1012 — Invalid Invite Token

Field	Value
HTTP	401
Trigger	User follows invite link after it has expired (7 days) or already been used
Retry	No — request new invitation

```
{
  "error": {
    "code": "BILKO-1012",
    "message": "Pozivnica je nevažeća ili je istekla."
  }
}
```

Module: Organizations (2xxx)

BILKO-2001 — Organization Not Found

Field	Value
HTTP	404
Trigger	Organization ID in JWT does not exist in database (account deleted while token still valid)

```
{
  "error": {
    "code": "BILKO-2001",
    "message": "Organizacija nije pronađena."
  }
}
```

BILKO-2002 — Invalid Currency Code

Field	Value
HTTP	422
Trigger	PUT /organization — baseCurrency is not one of EUR, RSD, BAM, HRK

```
{
  "error": {
    "code": "BILKO-2002",
    "message": "Neispravna valuta. Podržane valute: EUR, RSD, BAM, HRK.",
    "details": {
      "baseCurrency": ["Vrijednost mora biti jedna od: EUR, RSD, BAM, HRK."]
    }
  }
}
```

BILKO-2003 — Invalid Language Code

Field	Value
HTTP	422
Trigger	PUT /organization — language is not one of sr, bs, hr

```
{
  "error": {
    "code": "BILKO-2003",
    "message": "Neispravni jezički kod. Podržani jezici: sr, bs, hr.",
    "details": {
      "language": ["Vrijednost mora biti jedna od: sr, bs, hr."]
    }
  }
}
```

BILKO-2004 — Cannot Change Base Currency

Field	Value
HTTP	400
Trigger	PUT /organization — attempting to change baseCurrency when transactions already exist

```
{
  "error": {
    "code": "BILKO-2004",
    "message": "Osnovna valuta ne može se promijeniti jer već postoje finansijske transakcije."
  }
}
```

BILKO-2005 — User Not Found in Organization

Field	Value
HTTP	404
Trigger	PUT /users/:id/role or DELETE /users/:id — user UUID not in caller's organization

```
{
  "error": {
    "code": "BILKO-2005",
    "message": "Korisnik nije pronađen u ovoj organizaciji."
  }
}
```

```
}
```

BILKO-2006 — Cannot Modify Owner

Field	Value
HTTP	403
Trigger	PUT /users/:id/role or DELETE /users/:id — target user is owner

```
{
  "error": {
    "code": "BILKO-2006",
    "message": "Nije moguće promijeniti ili ukloniti vlasnika organizacije."
  }
}
```

BILKO-2007 — Cannot Remove Self

Field	Value
HTTP	403
Trigger	DELETE /users/:id — user attempts to delete their own account

```
{
  "error": {
    "code": "BILKO-2007",
    "message": "Ne možete ukloniti vlastiti korisnički račun."
  }
}
```

BILKO-2008 — Cannot Invite Existing Member

Field	Value
HTTP	409
Trigger	POST /users/invite — email already belongs to a user in this organization

```
{
  "error": {
    "code": "BILKO-2008",
    "message": "Korisnik s ovim emailom je već član organizacije."
  }
}
```

Module: Invoices (3xxx)

BILKO-3001 — Invoice Not Found

Field	Value
HTTP	404
Trigger	GET/PUT/PATCH/DELETE /invoices/:id — ID not found in caller's organization

```
{
  "error": {
    "code": "BILKO-3001",
    "message": "Faktura nije pronađena."
  }
}
```

BILKO-3002 — Customer Not Found

Field	Value
HTTP	404
Trigger	POST /invoices — customerId does not exist in organization's contacts

```
{
  "error": {
    "code": "BILKO-3002",
    "message": "Klijent nije pronađen."
  }
}
```

```
}
```

BILKO-3003 — Invoice Not in Draft Status

Field	Value
HTTP	400
Trigger	PUT /invoices/:id — attempting to edit an invoice that is not in <code>draft</code> status

```
{
  "error": {
    "code": "BILKO-3003",
    "message": "Faktura se može mijenjati samo u statusu 'nacrt'.",
    "details": {
      "status": ["Trenutni status: sent. Samo nacrti se mogu uređivati."]
    }
  }
}
```

BILKO-3004 — Invalid Invoice Status Transition

Field	Value
HTTP	400
Trigger	PATCH /invoices/:id/status — action is not valid for current invoice status

Valid transitions:

- `draft` → `sent` (action: `send`)
- `sent` or `viewed` → `paid` (action: `mark-paid`)
- Any non-cancelled → `cancelled` (action: `cancel`)

```
{
  "error": {
    "code": "BILKO-3004",
    "message": "Nevažeća promjena statusa fakture.",
    "details": {
      "action": ["Akcija 'mark-paid' nije dozvoljena za status 'draft'."]
    }
  }
}
```

```
}  
}  
}
```

BILKO-3005 — Customer Has No Email

Field	Value
HTTP	400
Trigger	POST /invoices/:id/send — customer contact has no email field set

```
{  
  "error": {  
    "code": "BILKO-3005",  
    "message": "Klijent nema email adresu. Dodajte email u kontakt podatke."  
  }  
}
```

BILKO-3006 — Invoice Items Required

Field	Value
HTTP	422
Trigger	POST /invoices — items array is empty

```
{  
  "error": {  
    "code": "BILKO-3006",  
    "message": "Faktura mora imati najmanje jednu stavku.",  
    "details": {  
      "items": ["Polje items ne može biti prazno."]  
    }  
  }  
}
```

BILKO-3007 — Negative or Zero Amount

Field	Value
HTTP	422
Trigger	POST /invoices or POST /invoices/:id/send — unitPrice or quantity is ≤ 0

```
{
  "error": {
    "code": "BILKO-3007",
    "message": "Iznosi moraju biti veći od nule.",
    "details": {
      "items[0].unitPrice": ["Cijena mora biti pozitivan broj."]
    }
  }
}
```

BILKO-3008 — Invalid Tax Rate

Field	Value
HTTP	422
Trigger	POST /invoices — taxRate is negative or exceeds 100

```
{
  "error": {
    "code": "BILKO-3008",
    "message": "Stopa poreza mora biti između 0 i 100.",
    "details": {
      "items[0].taxRate": ["Vrijednost mora biti između 0 i 100."]
    }
  }
}
```

BILKO-3009 — Due Date Before Invoice Date

Field	Value
HTTP	422
Trigger	POST /invoices — dueDate is before invoiceDate

```
{
  "error": {
    "code": "BILKO-3009",
    "message": "Datum dospijeca ne može biti prije datuma fakture.",
    "details": {
      "dueDate": ["Datum dospijeca mora biti isti ili kasniji od datuma fakture."]
    }
  }
}
```

BILKO-3010 — Invoice PDF Not Available

Field	Value
HTTP	404
Trigger	GET /invoices/:id/pdf — PDF has not yet been generated (invoice still in draft)

```
{
  "error": {
    "code": "BILKO-3010",
    "message": "PDF faktura nije dostupan. Faktura mora biti poslana da bi se generirao PDF."
  }
}
```

BILKO-3011 — Invoice Email Delivery Failed

Field	Value
HTTP	500
Trigger	POST /invoices/:id/send — SendGrid API returned error
Retry	Yes — once, after 5 seconds

```
{
  "error": {
    "code": "BILKO-3011",
    "message": "Slanje emaila nije uspjelo. Pokušajte ponovo.",
    "requestId": "req_01H9X3K5P2M7N8Q4R6S9T0V1W2"
  }
}
```

```
}  
}
```

Module: Expenses (4xxx)

BILKO-4001 — Expense Not Found

Field	Value
HTTP	404
Trigger	GET/PUT/PATCH/DELETE /expenses/:id — ID not in caller's organization

```
{  
  "error": {  
    "code": "BILKO-4001",  
    "message": "Trošak nije pronađen."  
  }  
}
```

BILKO-4002 — Expense Not in Pending Status

Field	Value
HTTP	400
Trigger	PUT /expenses/:id or DELETE /expenses/:id — expense is not in <code>pending</code> status

```
{  
  "error": {  
    "code": "BILKO-4002",  
    "message": "Trošak se može mijenjati ili brisati samo u statusu 'na čekanju'.",  
    "details": {  
      "status": ["Trenutni status: approved."]  
    }  
  }  
}
```

BILKO-4003 — Expense Already Processed

Field	Value
HTTP	400
Trigger	PATCH /expenses/:id/approve — expense is already approved, paid, or rejected

```
{
  "error": {
    "code": "BILKO-4003",
    "message": "Troškak je već obrađen i ne može se odobriti ponovo.",
    "details": {
      "status": ["Trenutni status: approved."]
    }
  }
}
```

BILKO-4004 — Vendor Not Found

Field	Value
HTTP	404
Trigger	POST /expenses — vendorId not found in organization's contacts

```
{
  "error": {
    "code": "BILKO-4004",
    "message": "Dobavljač nije pronađen."
  }
}
```

BILKO-4005 — Receipt File Too Large

Field	Value
HTTP	413
Trigger	POST /expenses with receiptFile — file exceeds 10MB

```
{
  "error": {
    "code": "BILKO-4005",
    "message": "Fajl je prevelik. Maksimalna veličina je 10 MB."
  }
}
```

BILKO-4006 — Invalid Receipt File Type

Field	Value
HTTP	422
Trigger	POST /expenses with receiptFile — file is not PDF, PNG, or JPG

```
{
  "error": {
    "code": "BILKO-4006",
    "message": "Neispravan tip fajla. Dozvoljeni formati: PDF, PNG, JPG.",
    "details": {
      "receiptFile": ["Tip fajla 'docx' nije dozvoljen."]
    }
  }
}
```

BILKO-4007 — Receipt Upload Failed

Field	Value
HTTP	500
Trigger	Cloudflare R2 upload failed after ClamAV scan passed
Retry	Yes — exponential backoff

```
{
  "error": {
    "code": "BILKO-4007",
    "message": "Upload računa nije uspio. Pokušajte ponovo.",
    "requestId": "req_01H9X3K5P2M7N8Q4R6S9T0V1W2"
  }
}
```

```
}  
}
```

BILKO-4008 — File Rejected (Virus Detected)

Field	Value
HTTP	422
Trigger	ClamAV scan detected malware in uploaded file
Retry	No

```
{  
  "error": {  
    "code": "BILKO-4008",  
    "message": "Fajl nije prihvaćen zbog sigurnosnih razloga."  
  }  
}
```

Module: Banking (5xxx)

BILKO-5001 — Bank Account Not Found

Field	Value
HTTP	404
Trigger	GET/POST /bank-accounts/:id/* — ID not found in caller's organization

```
{  
  "error": {  
    "code": "BILKO-5001",  
    "message": "Bankovni račun nije pronađen."  
  }  
}
```

BILKO-5002 — GL Account Must Be Asset Type

Field	Value
HTTP	422
Trigger	POST /bank-accounts — referenced accountId is not an Asset account type

```
{
  "error": {
    "code": "BILKO-5002",
    "message": "Konto za bankovni račun mora biti tipa 'Imovina'.",
    "details": {
      "accountId": ["Odabrani konto je tipa 'Rashodi'. Odaberite konto tipa 'Imovina'."]
    }
  }
}
```

BILKO-5003 — GL Account Not Found

Field	Value
HTTP	404
Trigger	POST /bank-accounts — accountId does not exist in organization

```
{
  "error": {
    "code": "BILKO-5003",
    "message": "Konto nije pronađen."
  }
}
```

BILKO-5004 — Bank Transaction Not Found

Field	Value
HTTP	404
Trigger	POST /bank-accounts/:id/reconcile — bankTransactionId not found

```
{
  "error": {
    "code": "BILKO-5004",
    "message": "Bankovna transakcija nije pronađena."
  }
}
```

BILKO-5005 — Transaction Already Reconciled

Field	Value
HTTP	400
Trigger	POST /bank-accounts/:id/reconcile — either transaction is already reconciled = true

```
{
  "error": {
    "code": "BILKO-5005",
    "message": "Transakcija je već usklađena."
  }
}
```

BILKO-5006 — Invalid CSV Format

Field	Value
HTTP	422
Trigger	POST /bank-accounts/:id/import — CSV missing required columns or malformed

```
{
  "error": {
    "code": "BILKO-5006",
    "message": "Nevažeći format CSV fajla.",
    "details": {
      "file": ["Obavezne kolone: Date, Description, Amount, Reference."]
    }
  }
}
```

BILKO-5007 — CSV File Too Large

Field	Value
HTTP	413
Trigger	POST /bank-accounts/:id/import — CSV file exceeds 5MB

```
{
  "error": {
    "code": "BILKO-5007",
    "message": "CSV fajl je prevelik. Maksimalna veličina je 5 MB."
  }
}
```

BILKO-5008 — Invalid CSV Date Format

Field	Value
HTTP	422
Trigger	POST /bank-accounts/:id/import — date column values not parseable as ISO 8601

```
{
  "error": {
    "code": "BILKO-5008",
    "message": "Nevažeći format datuma u CSV fajlu.",
    "details": {
      "file": ["Datumi moraju biti u formatu YYYY-MM-DD (npr. 2026-02-24)."]
    }
  }
}
```

Module: Reports (6xxx)

BILKO-6001 — From Date Required

Field	Value
HTTP	422
Trigger	GET /reports/profit-loss, /cash-flow, /vat — from query parameter missing

```
{
  "error": {
    "code": "BILKO-6001",
    "message": "Početni datum je obavezan.",
    "details": {
      "from": ["Parametar 'from' je obavezan."]
    }
  }
}
```

BILKO-6002 — To Date Required

Field	Value
HTTP	422
Trigger	GET /reports/profit-loss, /cash-flow, /vat — to query parameter missing

```
{
  "error": {
    "code": "BILKO-6002",
    "message": "Krajnji datum je obavezan.",
    "details": {
      "to": ["Parametar 'to' je obavezan."]
    }
  }
}
```

BILKO-6003 — Invalid Date Range

Field	Value
HTTP	422
Trigger	Any report endpoint — from date is after to date

```
{
  "error": {
    "code": "BILKO-6003",
    "message": "Nevažeći raspon datuma. Početni datum mora biti prije krajnjeg.",
    "details": {
      "from": ["Mora biti prije 'to' datuma."]
    }
  }
}
```

BILKO-6004 — Trial Balance Not Balanced

Field	Value
HTTP	500
Trigger	GET /reports/trial-balance — internal data integrity check failed (debit ≠ credit totals)
Retry	No — requires manual investigation

```
{
  "error": {
    "code": "BILKO-6004",
    "message": "Greška integriteta podataka: probni bilans nije uravnotežen. Kontaktirajte podršku.",
    "requestId": "req_01H9X3K5P2M7N8Q4R6S9T0V1W2"
  }
}
```

Module: Contacts (7xxx)

BILKO-7001 — Contact Not Found

Field	Value
HTTP	404
Trigger	GET/PUT/DELETE /contacts/:id — ID not found in caller's organization

```
{
  "error": {
    "code": "BILKO-7001",
    "message": "Kontakt nije pronađen."
  }
}
```

BILKO-7002 — Contact Has Active Invoices

Field	Value
HTTP	400
Trigger	DELETE /contacts/:id — contact has invoices with status other than cancelled

```
{
  "error": {
    "code": "BILKO-7002",
    "message": "Kontakt ne može biti deaktiviran jer ima aktivne fakture."
  }
}
```

BILKO-7003 — Contact Has Active Expenses

Field	Value
HTTP	400
Trigger	DELETE /contacts/:id — contact has expenses with status other than rejected

```
{
  "error": {
    "code": "BILKO-7003",
    "message": "Kontakt ne može biti deaktiviran jer ima aktivne troškove."
  }
}
```

BILKO-7004 — Invalid ISO Country Code

Field	Value
HTTP	422
Trigger	POST/PUT /contacts — country is not a valid ISO 3166-1 alpha-2 code

```
{
  "error": {
    "code": "BILKO-7004",
    "message": "Nevažeći kod države.",
    "details": {
      "country": ["Mora biti ISO 3166-1 alpha-2 kod (npr. 'RS', 'BA', 'HR')."]
    }
  }
}
```

BILKO-7005 — Invalid Payment Terms

Field	Value
HTTP	422
Trigger	POST/PUT /contacts — paymentTerms is negative or not an integer

```
{
  "error": {
    "code": "BILKO-7005",
    "message": "Rok plaćanja mora biti pozitivan cijeli broj (dani).",
    "details": {
      "paymentTerms": ["Mora biti pozitivni cijeli broj."]
    }
  }
}
```

Module: Settings & Accounts (8xxx)

BILKO-8001 — Account Not Found

Field	Value
HTTP	404
Trigger	PUT /accounts/:id — account UUID not found in caller's organization

```
{
  "error": {
    "code": "BILKO-8001",
    "message": "Konto nije pronađen."
  }
}
```

BILKO-8002 — Account Code Already Exists

Field	Value
HTTP	409
Trigger	POST /accounts — code is not unique within the organization

```
{
  "error": {
    "code": "BILKO-8002",
    "message": "Konto sa ovim kodom već postoji.",
    "details": {
      "code": ["Kod '1200' je već u upotrebi."]
    }
  }
}
```

BILKO-8003 — Invalid Account Type

Field	Value
HTTP	422
Trigger	POST /accounts — accountId is not 1-5

```
{
  "error": {
    "code": "BILKO-8003",
    "message": "Nevažeći tip konta.",
    "details": {
      "accountTypeId": ["Mora biti između 1 (Imovina) i 5 (Rashodi)."]
    }
  }
}
```

BILKO-8004 — Cannot Deactivate Account with Transactions

Field	Value
HTTP	400
Trigger	PUT /accounts/:id — setting <code>isActive = false</code> on account that has transactions

```
{
  "error": {
    "code": "BILKO-8004",
    "message": "Konto se ne može deaktivirati jer ima postojeće transakcije."
  }
}
```

BILKO-8005 — Parent Account Not Found

Field	Value
HTTP	404
Trigger	POST /accounts — <code>parentAccountId</code> not found in organization

```
{
  "error": {
    "code": "BILKO-8005",
    "message": "Nadređeni konto nije pronađen."
  }
}
```

```
}  
}
```

BILKO-8006 — Invalid VAT Rate

Field	Value
HTTP	422
Trigger	PUT /settings/tax-rates — any rate value is negative or exceeds 100

```
{  
  "error": {  
    "code": "BILKO-8006",  
    "message": "Stopa PDV-a mora biti između 0 i 100.",  
    "details": {  
      "defaultVATRate": ["Vrijednost mora biti između 0 i 100."]  
    }  
  }  
}
```

General / Cross-cutting (9xxx)

BILKO-9001 — Insufficient Permissions

Field	Value
HTTP	403
Trigger	Any endpoint — user's role not in <code>allowedRoles</code> for that endpoint

```
{  
  "error": {  
    "code": "BILKO-9001",  
    "message": "Nemate dovoljna prava za ovu akciju.",  
    "details": {  
      "required": ["owner", "admin"],  
      "current": ["accountant"]  
    }  
  }  
}
```

```
}  
}  
}
```

BILKO-9002 — Resource Not Found

Field	Value
HTTP	404
Trigger	Generic fallback when a specific BILKO-Xxxx code doesn't apply

```
{  
  "error": {  
    "code": "BILKO-9002",  
    "message": "Traženi resurs nije pronađen."  
  }  
}
```

BILKO-9003 — Validation Failed

Field	Value
HTTP	422
Trigger	Generic Zod schema validation failure when no specific BILKO-Xxxx code applies

```
{  
  "error": {  
    "code": "BILKO-9003",  
    "message": "Validacija zahtjeva nije uspjela.",  
    "details": {  
      "fieldName": ["Opis greške validacije"]  
    }  
  }  
}
```

BILKO-9004 — Internal Server Error

Field	Value
HTTP	500
Trigger	Unhandled exception; logged to Sentry with full stack trace
Retry	Yes — exponential backoff

```
{
  "error": {
    "code": "BILKO-9004",
    "message": "Došlo je do greške na serveru. Pokušajte ponovo.",
    "requestId": "req_01H9X3K5P2M7N8Q4R6S9T0V1W2"
  }
}
```

BILKO-9005 — Rate Limit Exceeded

Field	Value
HTTP	429
Trigger	General API rate limit exceeded (100 req/min for reads, 10-50 for writes)
Retry	Yes — after <code>Retry-After</code> header

```
{
  "error": {
    "code": "BILKO-9005",
    "message": "Previše zahtjeva. Usporite."
  }
}
```

BILKO-9006 — Database Error

Field	Value
HTTP	500
Trigger	Prisma throws unexpected DB error (connection lost, constraint violation from race condition)
Retry	Yes — exponential backoff

```
{
  "error": {
    "code": "BILKO-9006",
    "message": "Greška baze podataka. Pokušajte ponovo.",
    "requestId": "req_01H9X3K5P2M7N8Q4R6S9T0V1W2"
  }
}
```

BILKO-9007 — External Service Unavailable

Field	Value
HTTP	503
Trigger	SendGrid, Cloudflare R2, or ECB API is unreachable after internal retries exhausted
Retry	Yes — exponential backoff; 503 responses include <code>Retry-After</code>

```
{
  "error": {
    "code": "BILKO-9007",
    "message": "Vanjska usluga trenutno nije dostupna. Pokušajte ponovo za nekoliko minuta.",
    "requestId": "req_01H9X3K5P2M7N8Q4R6S9T0V1W2"
  }
}
```

BILKO-9008 — Invalid Pagination Parameters

Field	Value
HTTP	400
Trigger	Any list endpoint — <code>page < 1</code> , <code>perPage > 100</code> , or non-integer values

```
{
  "error": {
    "code": "BILKO-9008",
    "message": "Nevažeći parametri paginacije.",
    "details": {
```

```
    "perPage": ["Maksimalna vrijednost je 100."],  
    "page": ["Mora biti pozitivan cijeli broj."]  
  }  
}  
}
```

i18n Error Messages

All error `message` fields are returned in the organization's configured `language` (`sr`, `bs`, `hr`, `en`). Codes and `details` keys are always in English to enable programmatic handling.

Message localization table (selected codes):

Code	SR (Serbian)	BS (Bosnian)	HR (Croatian)	EN (English)
BILKO-1001	Pogrešan email ili lozinka.	Pogrešan email ili lozinka.	Pogrešan email ili lozinka.	Invalid email or password.
BILKO-1003	Sesija je istekla. Osvježite token.	Sesija je istekla. Osvježite token.	Sesija je istekla. Osvježite token.	Session expired. Please refresh your token.
BILKO-1005	Autentifikacija je obavezna.	Autentifikacija je obavezna.	Autentifikacija je obavezna.	Authentication is required.
BILKO-1007	Previše pokušaja prijave. Pokušajte za 15 min.	Previše pokušaja prijave. Pokušajte za 15 min.	Previše pokušaja prijave. Pokušajte za 15 min.	Too many login attempts. Try again in 15 minutes.
BILKO-1008	Email adresa je već registrirana.	Email adresa je već registrirana.	Email adresa je već registrirana.	Email address is already registered.
BILKO-3001	Faktura nije pronađena.	Faktura nije pronađena.	Faktura nije pronađena.	Invoice not found.
BILKO-4001	Trošak nije pronađen.	Trošak nije pronađen.	Trošak nije pronađen.	Expense not found.
BILKO-7001	Kontakt nije pronađen.	Kontakt nije pronađen.	Kontakt nije pronađen.	Contact not found.
BILKO-9001	Nemate dovoljna prava za ovu akciju.	Nemate dovoljna prava za ovu akciju.	Nemate dovoljna prava za ovu akciju.	You do not have permission to perform this action.
BILKO-9003	Validacija zahtjeva nije uspjela.	Validacija zahtjeva nije uspjela.	Provjera zahtjeva nije uspjela.	Request validation failed.
BILKO-9004	Došlo je do greške na serveru.	Došlo je do greške na serveru.	Došlo je do pogreške na poslužitelju.	An internal server error occurred.

Code	SR (Serbian)	BS (Bosnian)	HR (Croatian)	EN (English)
BILKO-9005	Previše zahtjeva. Usporite.	Previše zahtjeva. Usporite.	Previše zahtjeva. Usporite.	Too many requests. Please slow down.

Implementation: Error messages are stored in `/src/lib/i18n/errors/` with one file per language (`sr.json`, `bs.json`, `hr.json`, `en.json`). The message is selected using the organization's `language` field from the JWT `orgId` lookup.

```
// src/lib/i18n/errors/en.json (excerpt)
{
  "BILKO-1001": "Invalid email or password.",
  "BILKO-1003": "Session expired. Please refresh your token.",
  "BILKO-9001": "You do not have permission to perform this action."
}
```

```
// src/lib/error-formatter.ts
function formatError(code: string, orgLanguage: string, details?: Record<string, string[]>) {
  const messages = require(`./i18n/errors/${orgLanguage}.json`)
  return {
    error: {
      code,
      message: messages[code] ?? messages['BILKO-9004'],
      ...(details && { details }),
    }
  }
}
```

Quick Reference — All Error Codes

Code	HTTP	Module	Short Description
BILKO-1001	401	Auth	Invalid credentials
BILKO-1002	403	Auth	Account disabled
BILKO-1003	401	Auth	Access token expired
BILKO-1004	401	Auth	Invalid token
BILKO-1005	401	Auth	No token provided
BILKO-1006	401	Auth	Refresh token invalid/expired

Code	HTTP	Module	Short Description
BILKO-1007	429	Auth	Auth rate limit exceeded
BILKO-1008	409	Auth	Email already registered
BILKO-1009	422	Auth	Weak password
BILKO-1010	403	Auth	2FA required
BILKO-1011	401	Auth	Invalid 2FA code
BILKO-1012	401	Auth	Invalid invite token
BILKO-2001	404	Org	Organization not found
BILKO-2002	422	Org	Invalid currency code
BILKO-2003	422	Org	Invalid language code
BILKO-2004	400	Org	Cannot change base currency
BILKO-2005	404	Org	User not found in org
BILKO-2006	403	Org	Cannot modify owner
BILKO-2007	403	Org	Cannot remove self
BILKO-2008	409	Org	User already a member
BILKO-3001	404	Invoices	Invoice not found
BILKO-3002	404	Invoices	Customer not found
BILKO-3003	400	Invoices	Invoice not in draft
BILKO-3004	400	Invoices	Invalid status transition
BILKO-3005	400	Invoices	Customer has no email
BILKO-3006	422	Invoices	Items array empty
BILKO-3007	422	Invoices	Negative/zero amount
BILKO-3008	422	Invoices	Invalid tax rate
BILKO-3009	422	Invoices	Due date before invoice date
BILKO-3010	404	Invoices	PDF not available
BILKO-3011	500	Invoices	Email delivery failed
BILKO-4001	404	Expenses	Expense not found
BILKO-4002	400	Expenses	Expense not pending
BILKO-4003	400	Expenses	Expense already processed
BILKO-4004	404	Expenses	Vendor not found
BILKO-4005	413	Expenses	Receipt file too large

Code	HTTP	Module	Short Description
BILKO-4006	422	Expenses	Invalid file type
BILKO-4007	500	Expenses	Upload failed
BILKO-4008	422	Expenses	Virus detected in file
BILKO-5001	404	Banking	Bank account not found
BILKO-5002	422	Banking	GL account must be Asset type
BILKO-5003	404	Banking	GL account not found
BILKO-5004	404	Banking	Bank transaction not found
BILKO-5005	400	Banking	Transaction already reconciled
BILKO-5006	422	Banking	Invalid CSV format
BILKO-5007	413	Banking	CSV file too large
BILKO-5008	422	Banking	Invalid CSV date format
BILKO-6001	422	Reports	From date required
BILKO-6002	422	Reports	To date required
BILKO-6003	422	Reports	Invalid date range
BILKO-6004	500	Reports	Trial balance not balanced
BILKO-7001	404	Contacts	Contact not found
BILKO-7002	400	Contacts	Contact has active invoices
BILKO-7003	400	Contacts	Contact has active expenses
BILKO-7004	422	Contacts	Invalid country code
BILKO-7005	422	Contacts	Invalid payment terms
BILKO-8001	404	Accounts	Account not found
BILKO-8002	409	Accounts	Account code already exists
BILKO-8003	422	Accounts	Invalid account type
BILKO-8004	400	Accounts	Cannot deactivate account with transactions
BILKO-8005	404	Accounts	Parent account not found
BILKO-8006	422	Settings	Invalid VAT rate
BILKO-9001	403	General	Insufficient permissions
BILKO-9002	404	General	Resource not found
BILKO-9003	422	General	Validation failed

Code	HTTP	Module	Short Description
BILKO-9004	500	General	Internal server error
BILKO-9005	429	General	Rate limit exceeded
BILKO-9006	500	General	Database error
BILKO-9007	503	General	External service unavailable
BILKO-9008	400	General	Invalid pagination parameters

End of Error Codes Catalog

Revision #4
Created 2026-02-24 23:10:42 UTC by John
Updated 2026-07-05 20:03:42 UTC by John