

# JuaJobs RESTful API Design Document

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# 1 Overview

JuaJobs is a job marketplace platform designed for the African market, connecting job seekers with employers. This API enables third-party developers to integrate with our platform.

## Base URL

```
https://api.juajobs.com/v1
```

## API Principles

- RESTful design patterns
- JSON request/response format
- OAuth 2.0 authentication
- Semantic versioning
- HATEOAS compliance

# 2 Resource Model

## Users

```
{
  "id": "uuid",
  "email": "string",
  "phone": "string",
  "first_name": "string",
  "last_name": "string",
  "user_type": "enum[job_seeker, employer, admin]",
  "profile_picture_url": "string",
  "created_at": "datetime",
  "updated_at": "datetime",
  "email_verified": "boolean",
  "phone_verified": "boolean",
  "preferred_language": "string",
  "location": {
    "country": "string",
    "city": "string",
    "region": "string"
  }
}
```

## Jobs

```
{
  "id": "uuid",
  "title": "string",
  ...
  "application_count": "integer"
}
```

## Applications

```
{
    "id": "uuid",
    ...
    "interview_schedule": "object"
}
```

## Companies

```
{
    "id": "uuid",
    ...
    "created_at": "datetime"
}
```

## Skills

```
{
    "id": "uuid",
    ...
    "popularity_score": "integer"
}
```

## Notifications

```
{
    "id": "uuid",
    ...
    "channels": ["email", "sms", "push"]
}
```

## Reviews

```
{
    "id": "uuid",
    ...
    "helpful_count": "integer"
}
```

# 3 API Endpoints

## Authentication Endpoints

```
POST    /auth/register
POST    /auth/login
...
POST    /auth/reset-password
```

## User Endpoints

GET	/users/me
PUT	/users/me
...	
DELETE	/users/{id}/saved-jobs/{jobId}

## Job Endpoints

GET	/jobs
POST	/jobs
...	
GET	/jobs/recommended

## Application Endpoints

GET	/applications
...	
POST	/applications/{id}/interview

## Company Endpoints

GET	/companies
...	
POST	/companies/{id}/verify

## Skill Endpoints

GET	/skills
...	
GET	/skills/trending

## Notification Endpoints

GET	/notifications
...	
PUT	/notifications/preferences

## Review Endpoints

GET	/reviews
...	
POST	/reviews/{id}/helpful

# 4 Authentication & Security

## OAuth 2.0 Flow

1. Authorization Code Flow
2. Client Credentials Flow
3. Refresh Token Flow

## Token Structure

```
{
  "access_token": "string",
  ...
  "scope": "read write"
}
```

## Security Headers

```
Authorization: Bearer {access_token}
...
X-Client-Version: {version}
```

## Role-Based Access Control

Resource	Guest	Job Seeker	Employer	Admin
View Jobs	✓		✓	✓
Apply to Jobs	✗	✓	✗	✓
Post Jobs	✗	✗	✓	✓
View Applications	✗	Own Company	✓	✓
Manage Users	✗	✗	✗	✓

## 5 Query Parameters & Filtering

### Pagination

```
GET /jobs?page=1&limit=20&sort=-posted_at
```

### Filtering

```
GET /jobs?location.country=KE&salary.min=50000
```

### Field Selection

```
GET /jobs?fields=id,title
```

### Search

```
GET /jobs/search?q=software+engineer&location=Nairobi
```

## 6 Error Handling

### Error Format

```
{
  "error": {
    "code": "RESOURCE_NOT_FOUND",
    ...
  }
}
```

## HTTP Status Codes

- 200 OK
- 201 Created
- 400 Bad Request ...
- 500 Internal Server Error

## Error Codes

```
- AUTH_FAILED
- TOKEN_EXPIRED
...
- SERVICE_UNAVAILABLE
```

# 7 Versioning Strategy

## URI Versioning

```
https://api.juajobs.com/v1/jobs
https://api.juajobs.com/v2/jobs
```

## Version Lifecycle

- Current: v1
- Beta: v2
- Deprecated: 6 months
- Sunset: 12 months

# 8 Localization & Market Considerations

## Language Support

```
Accept-Language: sw-KE,en-US;q=0.9
```

## Currency Support

```
{
  "salary": {
    "amount": 100000,
    "currency": "KES"
  }
}
```

## Mobile Money

```
POST /payments/mobile-money
{
  "provider": "M-PESA",
  ...
}
```

## Date/Time

```
X-Timezone: Africa/Nairobi
```

## Optimization

```
POST /batch
...
Cache-Control: max-age=300
```

# 9 Compliance & Data Privacy

## GDPR Endpoints

```
GET    /users/me/data-export
DELETE /users/me/data
```

## Data Handling

- Encryption at rest/in transit
- Retention policies: 2 years
- Regional laws: Kenya, Nigeria, SA, Egypt