

JSON Utility API Documentation

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1. Overview

JSON Utility application provides REST API endpoints for main JSON operations, such as:

- Validate JSON
- Merge two JSONs
- Sort JSON
- Search in JSON
- Generate Type Definition
- JSON Pretty Print
- Validate JSON Schema
- Convert JSON to CSV
- Convert CSV to JSON
- Convert JSON to EXCEL
- Convert EXCEL to JSON
- Convert JSON to XML
- Convert XML to JSON
- Convert JSON to YML
- Convert YML to JSON

2. Convert JSON to CSV

REST API endpoint for converting a JSON to CSV format.

2.1. CURL Request

```
$ curl 'http://localhost:8080/api/json/json-to-csv' -i -X POST \
-H 'Content-Type: application/json' \
-d '{
  "companies": [
    {
      "name": "Tech Solutions Inc.",
      "founded": 1998,
      "employees": [
        {
          "id": 1,
          "name": "Alice Smith",
          "title": "CEO",
          "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
              "street": "123 Tech Lane",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90001",
            }
          }
        }
      ]
    }
  ]
}'
```

```
        "coordinates": {
            "lat": 34.0522,
            "lng": -118.2437
        }
    },
    "projects": [
        {
            "projectId": "p-101",
            "name": "AI Assistant",
            "status": "active",
            "budget": 1200000.5,
            "milestones": [
                {
                    "milestoneId": "m-001",
                    "description": "Initial Research",
                    "dueDate": "2025-06-30",
                    "completed": true
                },
                {
                    "milestoneId": "m-002",
                    "description": "Prototype Development",
                    "dueDate": "2025-09-15",
                    "completed": false
                }
            ]
        }
    ],
    {
        "id": 2,
        "name": "Bob Johnson",
        "title": "CTO",
        "contact": {
            "email": "bob.johnson@techsolutions.com",
            "phone": "+1-555-5678",
            "address": {
                "street": "456 Dev Avenue",
                "city": "Code Town",
                "state": "NY",
                "zip": "10001",
                "coordinates": {
                    "lat": 40.7128,
                    "lng": -74.006
                }
            }
        },
        "projects": []
    }
],
"departments": {
```

```
"engineering": {
    "head": "Bob Johnson",
    "teams": [
        {
            "teamName": "Backend",
            "members": [
                "Charlie",
                "Dana",
                "Eli"
            ],
            "technologies": [
                "Node.js",
                "Python",
                "PostgreSQL"
            ]
        },
        {
            "teamName": "Frontend",
            "members": [
                "Fiona",
                "George"
            ],
            "technologies": [
                "React",
                "Vue",
                "HTML5",
                "CSS3"
            ]
        }
    ]
},
"hr": {
    "head": "Grace Lee",
    "teams": []
},
"offices": [
    {
        "location": "San Francisco",
        "capacity": 50,
        "openSince": "2010-05-15",
        "facilities": {
            "cafeteria": true,
            "gym": false,
            "parking": {
                "available": true,
                "spots": 20
            }
        }
    },
    {

```

```
"location": "New York",
"capacity": 30,
"openSince": "2015-08-20",
"facilities": {
    "cafeteria": true,
    "gym": true,
    "parking": {
        "available": false,
        "spots": 0
    }
},
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "contact": {
                "email": "jane.doe@futureinnovations.com",
                "phone": "+44-20-9876",
                "address": {
                    "street": "789 Future Blvd",
                    "city": "Tech Haven",
                    "state": "TX",
                    "zip": "73301",
                    "coordinates": {
                        "lat": 30.2672,
                        "lon": -95.375
                    }
                }
            }
        }
    ]
}
```

```
        "lng": -97.7431
    }
}
},
"projects": [
{
    "projectId": "p-201",
    "name": "Smart Home Automation",
    "status": "completed",
    "budget": 2000000,
    "milestones": [
        {
            "milestoneId": "m-101",
            "description": "Market Research",
            "dueDate": "2024-05-15",
            "completed": true
        },
        {
            "milestoneId": "m-102",
            "description": "Prototype Deployment",
            "dueDate": "2024-12-01",
            "completed": true
        }
    ]
},
{
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
                "lat": 30.2672,
                "lng": -97.7431
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Mark Twain",

```

```
"teams": [
  {
    "teamName": "Cloud",
    "members": [
      "Liam",
      "Emma",
      "Olivia"
    ],
    "technologies": [
      "AWS",
      "Azure",
      "Google Cloud"
    ]
  },
  {
    "teamName": "IoT",
    "members": [
      "Noah",
      "Ava"
    ],
    "technologies": [
      "Raspberry Pi",
      "Arduino",
      "MQTT"
    ]
  }
],
"hr": {
  "head": "Sophie Turner",
  "teams": []
},
"offices": [
  {
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
      "cafeteria": true,
      "gym": true,
      "parking": {
        "available": true,
        "spots": 25
      }
    }
  },
  {
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
      "cafeteria": true,
      "gym": true,
      "parking": {
        "available": true,
        "spots": 15
      }
    }
  }
]
```

```

    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
},
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
}
'

```

2.2. HTTP Request

```

POST /api/json/json-to-csv HTTP/1.1
Content-Type: application/json
Content-Length: 8139
Host: localhost:8080

```

```
{
    "companies": [
        {
            "name": "Tech Solutions Inc.",
            "founded": 1998,
            "employees": [
                {
                    "id": 1,

```

```
"name": "Alice Smith",
"title": "CEO",
"contact": {
    "email": "alice.smith@techsolutions.com",
    "phone": "+1-555-1234",
    "address": {
        "street": "123 Tech Lane",
        "city": "Innovate City",
        "state": "CA",
        "zip": "90001",
        "coordinates": {
            "lat": 34.0522,
            "lng": -118.2437
        }
    }
},
"projects": [
{
    "projectId": "p-101",
    "name": "AI Assistant",
    "status": "active",
    "budget": 1200000.5,
    "milestones": [
        {
            "milestoneId": "m-001",
            "description": "Initial Research",
            "dueDate": "2025-06-30",
            "completed": true
        },
        {
            "milestoneId": "m-002",
            "description": "Prototype Development",
            "dueDate": "2025-09-15",
            "completed": false
        }
    ]
}
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
        }
    }
}
```

```
        "coordinates": {
            "lat": 40.7128,
            "lng": -74.006
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            },
            {
                "teamName": "Frontend",
                "members": [
                    "Fiona",
                    "George"
                ],
                "technologies": [
                    "React",
                    "Vue",
                    "HTML5",
                    "CSS3"
                ]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
}
```

```

    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
},
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",

```

```

"contact": {
    "email": "jane.doe@futureinnovations.com",
    "phone": "+44-20-9876",
    "address": {
        "street": "789 Future Blvd",
        "city": "Tech Haven",
        "state": "TX",
        "zip": "73301",
        "coordinates": {
            "lat": 30.2672,
            "lng": -97.7431
        }
    }
},
"projects": [
    {
        "projectId": "p-201",
        "name": "Smart Home Automation",
        "status": "completed",
        "budget": 2000000,
        "milestones": [
            {
                "milestoneId": "m-101",
                "description": "Market Research",
                "dueDate": "2024-05-15",
                "completed": true
            },
            {
                "milestoneId": "m-102",
                "description": "Prototype Deployment",
                "dueDate": "2024-12-01",
                "completed": true
            }
        ]
    }
],
{
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
                "lat": 30.2672,

```

```
        "lng": -97.7431
    }
}
},
"projects": []
}
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "technologies": [
                    "AWS",
                    "Azure",
                    "Google Cloud"
                ]
            },
            {
                "teamName": "IoT",
                "members": [
                    "Noah",
                    "Ava"
                ],
                "technologies": [
                    "Raspberry Pi",
                    "Arduino",
                    "MQTT"
                ]
            }
        ]
    },
    "hr": {
        "head": "Sophie Turner",
        "teams": []
    }
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "conferenceRooms": 5
    }
}
]
```

```

        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
},
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
]
}

```

2.3. Request Headers

Name	Description
Content-Type	The content type, which must be <code>application/json</code> .

2.4. Request Body

```
{  
  "companies": [  
    {  
      "name": "Tech Solutions Inc.",  
      "founded": 1998,  
      "employees": [  
        {  
          "id": 1,  
          "name": "Alice Smith",  
          "title": "CEO",  
          "contact": {  
            "email": "alice.smith@techsolutions.com",  
            "phone": "+1-555-1234",  
            "address": {  
              "street": "123 Tech Lane",  
              "city": "Innovate City",  
              "state": "CA",  
              "zip": "90001",  
              "coordinates": {  
                "lat": 34.0522,  
                "lng": -118.2437  
              }  
            }  
          }  
        },  
        {  
          "name": "Bob Johnson",  
          "title": "CFO",  
          "contact": {  
            "email": "bob.johnson@techsolutions.com",  
            "phone": "+1-555-1235",  
            "address": {  
              "street": "456 Innovation St",  
              "city": "Innovate City",  
              "state": "CA",  
              "zip": "90002",  
              "coordinates": {  
                "lat": 34.0523,  
                "lng": -118.2438  
              }  
            }  
          }  
        }  
      ],  
      "projects": [  
        {  
          "projectId": "p-101",  
          "name": "AI Assistant",  
          "status": "active",  
          "budget": 1200000.5,  
          "milestones": [  
            {  
              "milestoneId": "m-001",  
              "description": "Initial Research",  
              "dueDate": "2025-06-30",  
              "completed": true  
            },  
            {  
              "milestoneId": "m-002",  
              "description": "Prototype Development",  
              "dueDate": "2025-09-15",  
              "completed": false  
            }  
          ]  
        }  
      ]  
    }  
  ]  
}
```

```

    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            },
            {
                "teamName": "Frontend",
                "members": [
                    "Fiona",
                    "George"
                ],
                "technologies": [
                    "React",
                    "Vue",
                    "HTML5",
                    "CSS3"
                ]
            }
        ]
    }
}
]

```

```
},
  "hr": {
    "head": "Grace Lee",
    "teams": []
  }
},
"offices": [
  {
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
      "cafeteria": true,
      "gym": false,
      "parking": {
        "available": true,
        "spots": 20
      }
    }
  },
  {
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
      "cafeteria": true,
      "gym": true,
      "parking": {
        "available": false,
        "spots": 0
      }
    }
  }
],
"financials": {
  "fiscalYear": 2024,
  "revenue": 5600000,
  "expenses": 3200000,
  "profit": 2400000,
  "currency": "USD",
  "investors": [
    {
      "name": "Capital Ventures",
      "investment": 1000000,
      "equity": 10
    },
    {
      "name": "Tech Angels",
      "investment": 500000,
      "equity": 5
    }
  ]
}
```

```

        ]
    }
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "contact": {
                "email": "jane.doe@futureinnovations.com",
                "phone": "+44-20-9876",
                "address": {
                    "street": "789 Future Blvd",
                    "city": "Tech Haven",
                    "state": "TX",
                    "zip": "73301",
                    "coordinates": {
                        "lat": 30.2672,
                        "lng": -97.7431
                    }
                }
            }
        },
        {
            "projects": [
                {
                    "projectId": "p-201",
                    "name": "Smart Home Automation",
                    "status": "completed",
                    "budget": 2000000,
                    "milestones": [
                        {
                            "milestoneId": "m-101",
                            "description": "Market Research",
                            "dueDate": "2024-05-15",
                            "completed": true
                        },
                        {
                            "milestoneId": "m-102",
                            "description": "Prototype Deployment",
                            "dueDate": "2024-12-01",
                            "completed": true
                        }
                    ]
                }
            ]
        },
        {
            "id": 2,
            "name": "Mark Twain",

```

```
"title": "COO",
"contact": {
    "email": "mark.twain@futureinnovations.com",
    "phone": "+44-20-5432",
    "address": {
        "street": "321 Innovation Road",
        "city": "Tech Haven",
        "state": "TX",
        "zip": "73301",
        "coordinates": {
            "lat": 30.2672,
            "lng": -97.7431
        }
    }
},
"projects": []
},
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "technologies": [
                    "AWS",
                    "Azure",
                    "Google Cloud"
                ]
            },
            {
                "teamName": "IoT",
                "members": [
                    "Noah",
                    "Ava"
                ],
                "technologies": [
                    "Raspberry Pi",
                    "Arduino",
                    "MQTT"
                ]
            }
        ]
    },
    "hr": {
        "head": "Sophie Turner",
        "members": [
            {
                "name": "John Doe",
                "role": "Manager"
            },
            {
                "name": "Jane Smith",
                "role": "Analyst"
            },
            {
                "name": "Mike Johnson",
                "role": "Developer"
            },
            {
                "name": "Sarah Williams",
                "role": "Designer"
            }
        ]
    }
}
```

```

        "teams": []
    }
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
}

```

```
    ]  
}
```

2.5. HTTP Response

```
HTTP/1.1 200 OK  
Content-Type: text/plain; charset=UTF-8  
Content-Length: 206  
  
company_name, founded, employee_id, employee_name  
Tech Solutions Inc., 1998, 1, Alice Smith  
Tech Solutions Inc., 1998, 2, Bob Johnson  
Future Innovations Ltd., 2005, 1, Jane Doe  
Future Innovations Ltd., 2005, 2, Mark Twain
```

2.6. Response Body

```
company_name, founded, employee_id, employee_name  
Tech Solutions Inc., 1998, 1, Alice Smith  
Tech Solutions Inc., 1998, 2, Bob Johnson  
Future Innovations Ltd., 2005, 1, Jane Doe  
Future Innovations Ltd., 2005, 2, Mark Twain
```

3. Convert CSV to JSON

REST API endpoint for converting a CSV string to a JSON.

3.1. CURL Request

```
$ curl 'http://localhost:8080/api/json/csv-to-json' -i -X POST \  
-H 'Content-Type: text/csv' \  
-d 'Company,Founded,Employee ID,Employee Name,Employee  
Title,Email,Phone,Street,City,State,Zip,Lng,Project ID,Project Name,Project  
Status,Project Budget,Milestone ID,Milestone Description,Milestone Due Date,Milestone  
Completed  
Tech Solutions Inc.,1998,1,Alice Smith,CEO,alice.smith@techsolutions.com,+1-555-  
1234,123 Tech Lane,Innovate City,CA,90001,34.0522,-118.2437,p-101,AI  
Assistant,active,1200000.5,m-001,Initial Research,2025-06-30,True  
Tech Solutions Inc.,1998,1,Alice Smith,CEO,alice.smith@techsolutions.com,+1-555-  
1234,123 Tech Lane,Innovate City,CA,90001,34.0522,-118.2437,p-101,AI  
Assistant,active,1200000.5,m-002,Prototype Development,2025-09-15,False  
Tech Solutions Inc.,1998,2,Bob Johnson,CTO,bob.johnson@techsolutions.com,+1-555-  
5678,456 Dev Avenue,Code Town,NY,10001,40.7128,-74.006,,  
Future Innovations Ltd.,2005,1,Jane Doe,Founder,jane.doe@futureinnovations.com,+44-20-
```

```

9876,789 Future Blvd,Tech Haven,TX,73301,30.2672,-97.7431,p-201,Smart Home
Automation,completed,2000000,m-101,Market Research,2024-05-15,True
Future Innovations Ltd.,2005,1,Jane Doe,Founder,jane.doe@futureinnovations.com,+44-20-
9876,789 Future Blvd,Tech Haven,TX,73301,30.2672,-97.7431,p-201,Smart Home
Automation,completed,2000000,m-102,Prototype Deployment,2024-12-01,True
Future Innovations Ltd.,2005,2,Mark Twain,COO,mark.twain@futureinnovations.com,+44-20-
5432,321 Innovation Road,Tech Haven,TX,73301,30.2672,-97.7431,,,,,,,'
```

3.2. HTTP Request

POST /api/json/csv-to-json HTTP/1.1

Content-Type: text/csv

Content-Length: 1422

Host: localhost:8080

```

Company,Founded,Employee ID,Employee Name,Employee
Title,Email,Phone,Street,City,State,Zip,Lat,Lng,Project ID,Project Name,Project
Status,Project Budget,Milestone ID,Milestone Description,Milestone Due Date,Milestone
Completed
Tech Solutions Inc.,1998,1,Alice Smith,CEO,alice.smith@techsolutions.com,+1-555-
1234,123 Tech Lane,Innovate City,CA,90001,34.0522,-118.2437,p-101,AI
Assistant,active,1200000.5,m-001,Initial Research,2025-06-30,True
Tech Solutions Inc.,1998,1,Alice Smith,CEO,alice.smith@techsolutions.com,+1-555-
1234,123 Tech Lane,Innovate City,CA,90001,34.0522,-118.2437,p-101,AI
Assistant,active,1200000.5,m-002,Prototype Development,2025-09-15,False
Tech Solutions Inc.,1998,2,Bob Johnson,CTO,bob.johnson@techsolutions.com,+1-555-
5678,456 Dev Avenue,Code Town,NY,10001,40.7128,-74.006,,,
Future Innovations Ltd.,2005,1,Jane Doe,Founder,jane.doe@futureinnovations.com,+44-20-
9876,789 Future Blvd,Tech Haven,TX,73301,30.2672,-97.7431,p-201,Smart Home
Automation,completed,2000000,m-101,Market Research,2024-05-15,True
Future Innovations Ltd.,2005,1,Jane Doe,Founder,jane.doe@futureinnovations.com,+44-20-
9876,789 Future Blvd,Tech Haven,TX,73301,30.2672,-97.7431,p-201,Smart Home
Automation,completed,2000000,m-102,Prototype Deployment,2024-12-01,True
Future Innovations Ltd.,2005,2,Mark Twain,COO,mark.twain@futureinnovations.com,+44-20-
5432,321 Innovation Road,Tech Haven,TX,73301,30.2672,-97.7431,,,,,'
```

3.3. Request Headers

Name	Description
Content-Type	The content type, which must be text/csv .

3.4. Request Body

```

Company,Founded,Employee ID,Employee Name,Employee
Title,Email,Phone,Street,City,State,Zip,Lat,Lng,Project ID,Project Name,Project
```

Status	Project Budget	Milestone ID	Milestone Description	Milestone Due Date	Milestone Completed
Tech Solutions Inc.	1998	1	Alice Smith,CEO,alice.smith@techsolutions.com,+1-555-1234,123 Tech Lane,Innovate City,CA,90001,34.0522,-118.2437,p-101,AI Assistant,active,1200000.5,m-001,Initial Research,2025-06-30,True		
Tech Solutions Inc.	1998	1	Alice Smith,CEO,alice.smith@techsolutions.com,+1-555-1234,123 Tech Lane,Innovate City,CA,90001,34.0522,-118.2437,p-101,AI Assistant,active,1200000.5,m-002,Prototype Development,2025-09-15,False		
Tech Solutions Inc.	1998	2	Bob Johnson,CTO,bob.johnson@techsolutions.com,+1-555-5678,456 Dev Avenue,Code Town,NY,10001,40.7128,-74.006,,,,		
Future Innovations Ltd.	2005	1	Jane Doe,Founder,jane.doe@futureinnovations.com,+44-20-9876,789 Future Blvd,Tech Haven,TX,73301,30.2672,-97.7431,p-201,Smart Home Automation,completed,2000000,m-101,Market Research,2024-05-15,True		
Future Innovations Ltd.	2005	1	Jane Doe,Founder,jane.doe@futureinnovations.com,+44-20-9876,789 Future Blvd,Tech Haven,TX,73301,30.2672,-97.7431,p-201,Smart Home Automation,completed,2000000,m-102,Prototype Deployment,2024-12-01,True		
Future Innovations Ltd.	2005	2	Mark Twain,COO,mark.twain@futureinnovations.com,+44-20-5432,321 Innovation Road,Tech Haven,TX,73301,30.2672,-97.7431,,,,		

3.5. HTTP Response

HTTP/1.1 200 OK
Content-Type: text/plain; charset=UTF-8
Content-Length: 8139

```
{
  "companies": [
    {
      "name": "Tech Solutions Inc.",
      "founded": 1998,
      "employees": [
        {
          "id": 1,
          "name": "Alice Smith",
          "title": "CEO",
          "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
              "street": "123 Tech Lane",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90001",
              "coordinates": {
                "lat": 34.0522,
                "lng": -118.2437
              }
            }
          }
        },
      ]
    }
  ],
}
```

```

"projects": [
    {
        "projectId": "p-101",
        "name": "AI Assistant",
        "status": "active",
        "budget": 1200000.5,
        "milestones": [
            {
                "milestoneId": "m-001",
                "description": "Initial Research",
                "dueDate": "2025-06-30",
                "completed": true
            },
            {
                "milestoneId": "m-002",
                "description": "Prototype Development",
                "dueDate": "2025-09-15",
                "completed": false
            }
        ]
    }
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [

```

```
        "Charlie",
        "Dana",
        "Eli"
    ],
    "technologies": [
        "Node.js",
        "Python",
        "PostgreSQL"
    ]
},
{
    "teamName": "Frontend",
    "members": [
        "Fiona",
        "George"
    ],
    "technologies": [
        "React",
        "Vue",
        "HTML5",
        "CSS3"
    ]
}
],
},
"hr": {
    "head": "Grace Lee",
    "teams": []
}
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 10
        }
    }
}
]
```

```
        "parking": {
            "available": false,
            "spots": 0
        }
    }
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "contact": {
                "email": "jane.doe@futureinnovations.com",
                "phone": "+44-20-9876",
                "address": {
                    "street": "789 Future Blvd",
                    "city": "Tech Haven",
                    "state": "TX",
                    "zip": "73301",
                    "coordinates": {
                        "lat": 30.2672,
                        "lng": -97.7431
                    }
                }
            },
            "projects": [
                {

```

```
"projectId": "p-201",
"name": "Smart Home Automation",
"status": "completed",
"budget": 2000000,
"milestones": [
  {
    "milestoneId": "m-101",
    "description": "Market Research",
    "dueDate": "2024-05-15",
    "completed": true
  },
  {
    "milestoneId": "m-102",
    "description": "Prototype Deployment",
    "dueDate": "2024-12-01",
    "completed": true
  }
]
},
{
  "id": 2,
  "name": "Mark Twain",
  "title": "COO",
  "contact": {
    "email": "mark.twain@futureinnovations.com",
    "phone": "+44-20-5432",
    "address": {
      "street": "321 Innovation Road",
      "city": "Tech Haven",
      "state": "TX",
      "zip": "73301",
      "coordinates": {
        "lat": 30.2672,
        "lng": -97.7431
      }
    }
  },
  "projects": []
}
],
"departments": {
  "engineering": {
    "head": "Mark Twain",
    "teams": [
      {
        "teamName": "Cloud",
        "members": [
          "Liam",
          "Emma",
          "Olivia"
        ]
      }
    ]
  }
}
```

```
        "Olivia"
    ],
    "technologies": [
        "AWS",
        "Azure",
        "Google Cloud"
    ]
},
{
    "teamName": "IoT",
    "members": [
        "Noah",
        "Ava"
    ],
    "technologies": [
        "Raspberry Pi",
        "Arduino",
        "MQTT"
    ]
}
],
},
"hr": {
    "head": "Sophie Turner",
    "teams": []
}
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
}
```

```

        }
    }
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
]
}

```

3.6. Response Body

```
{
  "companies": [
    {
      "name": "Tech Solutions Inc.",
      "founded": 1998,
      "employees": [
        {
          "id": 1,
          "name": "Alice Smith",
          "title": "CEO",
          "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
              "street": "123 Tech Lane",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90001",
              "coordinates": {
                "lat": 34.0522,
                "lon": -118.2437
              }
            }
          }
        }
      ]
    }
  ]
}
```

```
        "lng": -118.2437
    }
}
},
"projects": [
{
    "projectId": "p-101",
    "name": "AI Assistant",
    "status": "active",
    "budget": 1200000.5,
    "milestones": [
        {
            "milestoneId": "m-001",
            "description": "Initial Research",
            "dueDate": "2025-06-30",
            "completed": true
        },
        {
            "milestoneId": "m-002",
            "description": "Prototype Development",
            "dueDate": "2025-09-15",
            "completed": false
        }
    ]
},
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",

```

```
"teams": [
  {
    "teamName": "Backend",
    "members": [
      "Charlie",
      "Dana",
      "Eli"
    ],
    "technologies": [
      "Node.js",
      "Python",
      "PostgreSQL"
    ]
  },
  {
    "teamName": "Frontend",
    "members": [
      "Fiona",
      "George"
    ],
    "technologies": [
      "React",
      "Vue",
      "HTML5",
      "CSS3"
    ]
  }
],
"hr": {
  "head": "Grace Lee",
  "teams": []
},
"offices": [
  {
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
      "cafeteria": true,
      "gym": false,
      "parking": {
        "available": true,
        "spots": 20
      }
    }
  },
  {
    "location": "New York",
    "capacity": 30,
  }
]
```

```

    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "contact": {
                "email": "jane.doe@futureinnovations.com",
                "phone": "+44-20-9876",
                "address": {
                    "street": "789 Future Blvd",
                    "city": "Tech Haven",
                    "state": "TX",
                    "zip": "73301",
                    "coordinates": {
                        "lat": 30.2672,
                        "lng": -97.7431
                    }
                }
            }
        }
    ]
}

```

```

        }
    },
    "projects": [
        {
            "projectId": "p-201",
            "name": "Smart Home Automation",
            "status": "completed",
            "budget": 2000000,
            "milestones": [
                {
                    "milestoneId": "m-101",
                    "description": "Market Research",
                    "dueDate": "2024-05-15",
                    "completed": true
                },
                {
                    "milestoneId": "m-102",
                    "description": "Prototype Deployment",
                    "dueDate": "2024-12-01",
                    "completed": true
                }
            ]
        }
    ],
    {
        "id": 2,
        "name": "Mark Twain",
        "title": "COO",
        "contact": {
            "email": "mark.twain@futureinnovations.com",
            "phone": "+44-20-5432",
            "address": {
                "street": "321 Innovation Road",
                "city": "Tech Haven",
                "state": "TX",
                "zip": "73301",
                "coordinates": {
                    "lat": 30.2672,
                    "lng": -97.7431
                }
            }
        },
        "projects": []
    }
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {

```

```

    "teamName": "Cloud",
    "members": [
        "Liam",
        "Emma",
        "Olivia"
    ],
    "technologies": [
        "AWS",
        "Azure",
        "Google Cloud"
    ]
},
{
    "teamName": "IoT",
    "members": [
        "Noah",
        "Ava"
    ],
    "technologies": [
        "Raspberry Pi",
        "Arduino",
        "MQTT"
    ]
}
],
"hr": {
    "head": "Sophie Turner",
    "teams": []
}
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,

```

```

        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
}

```

4. Convert JSON to EXCEL

REST API endpoint for converting a JSON to a Base64-encoded Excel file.

4.1. CURL Request

```

$ curl 'http://localhost:8080/api/json/json-to-excel' -i -X POST \
-H 'Content-Type: application/json' \
-d '{
"companies": [
{
    "name": "Tech Solutions Inc.",
    "founded": 1998,
    "employees": [
        {
            "id": 1,
            "name": "Alice Smith",

```

```
"title": "CEO",
"contact": {
    "email": "alice.smith@techsolutions.com",
    "phone": "+1-555-1234",
    "address": {
        "street": "123 Tech Lane",
        "city": "Innovate City",
        "state": "CA",
        "zip": "90001",
        "coordinates": {
            "lat": 34.0522,
            "lng": -118.2437
        }
    }
},
"projects": [
    {
        "projectId": "p-101",
        "name": "AI Assistant",
        "status": "active",
        "budget": 1200000.5,
        "milestones": [
            {
                "milestoneId": "m-001",
                "description": "Initial Research",
                "dueDate": "2025-06-30",
                "completed": true
            },
            {
                "milestoneId": "m-002",
                "description": "Prototype Development",
                "dueDate": "2025-09-15",
                "completed": false
            }
        ]
    }
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
```

```
        "lat": 40.7128,
        "lng": -74.006
    }
}
},
"projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            },
            {
                "teamName": "Frontend",
                "members": [
                    "Fiona",
                    "George"
                ],
                "technologies": [
                    "React",
                    "Vue",
                    "HTML5",
                    "CSS3"
                ]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
```

```
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
},
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "contact": {
                "phone": "+1 555-1234567",
                "email": "jane.doe@futureinnovations.com"
            }
        }
    ]
}
```

```
"email": "jane.doe@futureinnovations.com",
"phone": "+44-20-9876",
"address": {
    "street": "789 Future Blvd",
    "city": "Tech Haven",
    "state": "TX",
    "zip": "73301",
    "coordinates": {
        "lat": 30.2672,
        "lng": -97.7431
    }
},
},
"projects": [
{
    "projectId": "p-201",
    "name": "Smart Home Automation",
    "status": "completed",
    "budget": 2000000,
    "milestones": [
        {
            "milestoneId": "m-101",
            "description": "Market Research",
            "dueDate": "2024-05-15",
            "completed": true
        },
        {
            "milestoneId": "m-102",
            "description": "Prototype Deployment",
            "dueDate": "2024-12-01",
            "completed": true
        }
    ]
},
{
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
                "lat": 30.2672,
                "lng": -97.7431
            }
        }
    }
}
```

```
        }
      }
    },
    "projects": []
  }
],
"departments": {
  "engineering": {
    "head": "Mark Twain",
    "teams": [
      {
        "teamName": "Cloud",
        "members": [
          "Liam",
          "Emma",
          "Olivia"
        ],
        "technologies": [
          "AWS",
          "Azure",
          "Google Cloud"
        ]
      },
      {
        "teamName": "IoT",
        "members": [
          "Noah",
          "Ava"
        ],
        "technologies": [
          "Raspberry Pi",
          "Arduino",
          "MQTT"
        ]
      }
    ]
  },
  "hr": {
    "head": "Sophie Turner",
    "teams": []
  }
},
"offices": [
  {
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
      "cafeteria": true,
      "gym": true,
      "parking": {

```

```

        "available": true,
        "spots": 25
    }
}
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
},
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
]
}
,
```

4.2. HTTP Request

```

POST /api/json/json-to-excel HTTP/1.1
Content-Type: application/json
Content-Length: 8139
Host: localhost:8080

```

```
{
  "companies": [
    {
      "name": "Tech Solutions Inc.",
      "founded": 1998,
      "employees": [
        {
          "id": 1,
          "name": "Alice Smith",
          "title": "CEO",
          "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
              "street": "123 Tech Lane",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90001",
              "coordinates": {
                "lat": 34.0522,
                "lng": -118.2437
              }
            }
          },
          "projects": [
            {
              "projectId": "p-101",
              "name": "AI Assistant",
              "status": "active",
              "budget": 1200000.5,
              "milestones": [
                {
                  "milestoneId": "m-001",
                  "description": "Initial Research",
                  "dueDate": "2025-06-30",
                  "completed": true
                },
                {
                  "milestoneId": "m-002",
                  "description": "Prototype Development",
                  "dueDate": "2025-09-15",
                  "completed": false
                }
              ]
            }
          ],
          "{
            "id": 2,
            "name": "Bob Johnson",
            "title": "CTO",
            "contact": {
              "email": "bob.johnson@techsolutions.com",
              "phone": "+1-555-1235",
              "address": {
                "street": "456 Innovation St",
                "city": "Innovate City",
                "state": "CA",
                "zip": "90002",
                "coordinates": {
                  "lat": 34.0523,
                  "lng": -118.2438
                }
              }
            }
          }
        ]
      ]
    }
  ]
}
```

```
"title": "CTO",
"contact": {
    "email": "bob.johnson@techsolutions.com",
    "phone": "+1-555-5678",
    "address": {
        "street": "456 Dev Avenue",
        "city": "Code Town",
        "state": "NY",
        "zip": "10001",
        "coordinates": {
            "lat": 40.7128,
            "lng": -74.006
        }
    }
},
"projects": []
},
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            },
            {
                "teamName": "Frontend",
                "members": [
                    "Fiona",
                    "George"
                ],
                "technologies": [
                    "React",
                    "Vue",
                    "HTML5",
                    "CSS3"
                ]
            }
        ]
    },
    "hr": {
```

```
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
}
```

```
},
{
  "name": "Future Innovations Ltd.",
  "founded": 2005,
  "employees": [
    {
      "id": 1,
      "name": "Jane Doe",
      "title": "Founder",
      "contact": {
        "email": "jane.doe@futureinnovations.com",
        "phone": "+44-20-9876",
        "address": {
          "street": "789 Future Blvd",
          "city": "Tech Haven",
          "state": "TX",
          "zip": "73301",
          "coordinates": {
            "lat": 30.2672,
            "lng": -97.7431
          }
        }
      }
    },
    "projects": [
      {
        "projectId": "p-201",
        "name": "Smart Home Automation",
        "status": "completed",
        "budget": 2000000,
        "milestones": [
          {
            "milestoneId": "m-101",
            "description": "Market Research",
            "dueDate": "2024-05-15",
            "completed": true
          },
          {
            "milestoneId": "m-102",
            "description": "Prototype Deployment",
            "dueDate": "2024-12-01",
            "completed": true
          }
        ]
      }
    ],
    {
      "id": 2,
      "name": "Mark Twain",
      "title": "COO",
      "contact": {
```

```
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
                "lat": 30.2672,
                "lng": -97.7431
            }
        },
        "projects": []
    }
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "technologies": [
                    "AWS",
                    "Azure",
                    "Google Cloud"
                ]
            },
            {
                "teamName": "IoT",
                "members": [
                    "Noah",
                    "Ava"
                ],
                "technologies": [
                    "Raspberry Pi",
                    "Arduino",
                    "MQTT"
                ]
            }
        ]
    },
    "hr": {
        "head": "Sophie Turner",
        "teams": []
    }
}
```

```
},
  "offices": [
    {
      "location": "Austin",
      "capacity": 40,
      "openSince": "2018-03-10",
      "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
          "available": true,
          "spots": 25
        }
      }
    },
    {
      "location": "London",
      "capacity": 20,
      "openSince": "2021-11-05",
      "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
          "available": true,
          "spots": 10
        }
      }
    }
  ],
  "financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
      {
        "name": "Global Tech Fund",
        "investment": 2000000,
        "equity": 15
      },
      {
        "name": "Startup Angels",
        "investment": 750000,
        "equity": 7
      }
    ]
  }
]
```

```
}
```

4.3. Request Headers

Name	Description
Content-Type	The content type, which must be application/json .

4.4. Request Body

```
{
  "companies": [
    {
      "name": "Tech Solutions Inc.",
      "founded": 1998,
      "employees": [
        {
          "id": 1,
          "name": "Alice Smith",
          "title": "CEO",
          "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
              "street": "123 Tech Lane",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90001",
              "coordinates": {
                "lat": 34.0522,
                "lng": -118.2437
              }
            }
          },
        },
        {
          "projects": [
            {
              "projectId": "p-101",
              "name": "AI Assistant",
              "status": "active",
              "budget": 1200000.5,
              "milestones": [
                {
                  "milestoneId": "m-001",
                  "description": "Initial Research",
                  "dueDate": "2025-06-30",
                  "completed": true
                },
              ],
            }
          ]
        }
      ]
    }
  ]
}
```

```

        {
          "milestoneId": "m-002",
          "description": "Prototype Development",
          "dueDate": "2025-09-15",
          "completed": false
        }
      ]
    }
  ]
},
{
  "id": 2,
  "name": "Bob Johnson",
  "title": "CTO",
  "contact": {
    "email": "bob.johnson@techsolutions.com",
    "phone": "+1-555-5678",
    "address": {
      "street": "456 Dev Avenue",
      "city": "Code Town",
      "state": "NY",
      "zip": "10001",
      "coordinates": {
        "lat": 40.7128,
        "lng": -74.006
      }
    }
  },
  "projects": []
}
],
"departments": {
  "engineering": {
    "head": "Bob Johnson",
    "teams": [
      {
        "teamName": "Backend",
        "members": [
          "Charlie",
          "Dana",
          "Eli"
        ],
        "technologies": [
          "Node.js",
          "Python",
          "PostgreSQL"
        ]
      },
      {
        "teamName": "Frontend",
        "members": [

```

```
        "Fiona",
        "George"
    ],
    "technologies": [
        "React",
        "Vue",
        "HTML5",
        "CSS3"
    ]
}
],
},
"hr": {
    "head": "Grace Lee",
    "teams": []
}
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
},
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
}
```

```

    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "contact": {
                "email": "jane.doe@futureinnovations.com",
                "phone": "+44-20-9876",
                "address": {
                    "street": "789 Future Blvd",
                    "city": "Tech Haven",
                    "state": "TX",
                    "zip": "73301",
                    "coordinates": {
                        "lat": 30.2672,
                        "lng": -97.7431
                    }
                }
            }
        },
        {
            "name": "Smart Home Automation",
            "status": "completed",
            "budget": 2000000,
            "milestones": [
                {
                    "milestoneId": "m-101",
                    "description": "Market Research",
                    "dueDate": "2024-05-15",
                    "completed": true
                },
                {
                    "milestoneId": "m-102",
                    "description": "Prototyping Phase"
                }
            ]
        }
    ]
}

```

```

        "description": "Prototype Deployment",
        "dueDate": "2024-12-01",
        "completed": true
    }
]
}
],
},
{
"id": 2,
"name": "Mark Twain",
"title": "COO",
"contact": {
    "email": "mark.twain@futureinnovations.com",
    "phone": "+44-20-5432",
    "address": {
        "street": "321 Innovation Road",
        "city": "Tech Haven",
        "state": "TX",
        "zip": "73301",
        "coordinates": {
            "lat": 30.2672,
            "lng": -97.7431
        }
    }
},
"projects": []
}
],
"departments": {
"engineering": {
    "head": "Mark Twain",
    "teams": [
    {
        "teamName": "Cloud",
        "members": [
            "Liam",
            "Emma",
            "Olivia"
        ],
        "technologies": [
            "AWS",
            "Azure",
            "Google Cloud"
        ]
    },
    {
        "teamName": "IoT",
        "members": [
            "Noah",
            "Ava"
        ]
    }
]
}
}

```

```
        ],
        "technologies": [
            "Raspberry Pi",
            "Arduino",
            "MQTT"
        ]
    }
}
],
"hr": {
    "head": "Sophie Turner",
    "teams": []
}
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "percentage": 10
        }
    ]
}
```

```
        "investment": 2000000,
        "equity": 15
    },
    {
        "name": "Startup Angels",
        "investment": 75000,
        "equity": 7
    }
]
}
]
```

4.5. HTTP Response

```
HTTP/1.1 200 OK
Content-Type: text/plain; charset=UTF-8
Content-Length: 14

UEsDBBQABgA...
```

4.6. Response Body

```
UEsDBBQABgA...
```

5. Convert EXCEL to JSON

REST API endpoint for converting a Base64-encoded Excel file to a JSON.

5.1. CURL Request

```
$ curl 'http://localhost:8080/api/json/excel-to-json' -i -X POST \
-H 'Content-Type: application/json' \
-d 'UEsDBBQABgA...'
```

5.2. HTTP Request

```
POST /api/json/excel-to-json HTTP/1.1
Content-Type: application/json
Content-Length: 14
Host: localhost:8080
```

UEsDBBQABgA...

5.3. Request Headers

Name	Description
Content-Type	The content type, which must be <code>application/json</code> .

5.4. Request Body

UEsDBBQABgA...

5.5. HTTP Response

HTTP/1.1 200 OK
Content-Type: text/plain; charset=UTF-8
Content-Length: 8139

```
{
  "companies": [
    {
      "name": "Tech Solutions Inc.",
      "founded": 1998,
      "employees": [
        {
          "id": 1,
          "name": "Alice Smith",
          "title": "CEO",
          "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
              "street": "123 Tech Lane",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90001",
              "coordinates": {
                "lat": 34.0522,
                "lng": -118.2437
              }
            }
          },
          "projects": [
            {
              "name": "Project Alpha"
            }
          ]
        }
      ]
    }
  ]
}
```

```
"projectId": "p-101",
"name": "AI Assistant",
"status": "active",
"budget": 1200000.5,
"milestones": [
  {
    "milestoneId": "m-001",
    "description": "Initial Research",
    "dueDate": "2025-06-30",
    "completed": true
  },
  {
    "milestoneId": "m-002",
    "description": "Prototype Development",
    "dueDate": "2025-09-15",
    "completed": false
  }
]
},
{
  "id": 2,
  "name": "Bob Johnson",
  "title": "CTO",
  "contact": {
    "email": "bob.johnson@techsolutions.com",
    "phone": "+1-555-5678",
    "address": {
      "street": "456 Dev Avenue",
      "city": "Code Town",
      "state": "NY",
      "zip": "10001",
      "coordinates": {
        "lat": 40.7128,
        "lng": -74.006
      }
    }
  },
  "projects": []
}
],
"departments": {
  "engineering": {
    "head": "Bob Johnson",
    "teams": [
      {
        "teamName": "Backend",
        "members": [
          "Charlie",
          "Dana",
          "Eve"
        ]
      }
    ]
  }
}
```

```
        "Eli"
    ],
    "technologies": [
        "Node.js",
        "Python",
        "PostgreSQL"
    ]
},
{
    "teamName": "Frontend",
    "members": [
        "Fiona",
        "George"
    ],
    "technologies": [
        "React",
        "Vue",
        "HTML5",
        "CSS3"
    ]
}
],
},
"hr": {
    "head": "Grace Lee",
    "teams": []
}
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
```

```

        "spots": 0
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "contact": {
                "email": "jane.doe@futureinnovations.com",
                "phone": "+44-20-9876",
                "address": {
                    "street": "789 Future Blvd",
                    "city": "Tech Haven",
                    "state": "TX",
                    "zip": "73301",
                    "coordinates": {
                        "lat": 30.2672,
                        "lng": -97.7431
                    }
                }
            },
            "projects": [
                {
                    "projectId": "p-201",
                    "name": "Smart Home Automation",

```

```

    "status": "completed",
    "budget": 2000000,
    "milestones": [
        {
            "milestoneId": "m-101",
            "description": "Market Research",
            "dueDate": "2024-05-15",
            "completed": true
        },
        {
            "milestoneId": "m-102",
            "description": "Prototype Deployment",
            "dueDate": "2024-12-01",
            "completed": true
        }
    ]
},
{
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
                "lat": 30.2672,
                "lng": -97.7431
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "lead": "Liam"
            }
        ]
    }
}

```

```
"technologies": [
    "AWS",
    "Azure",
    "Google Cloud"
]
},
{
    "teamName": "IoT",
    "members": [
        "Noah",
        "Ava"
    ],
    "technologies": [
        "Raspberry Pi",
        "Arduino",
        "MQTT"
    ]
}
],
},
"hr": {
    "head": "Sophie Turner",
    "teams": []
}
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
}
```

```

        }
    ],
    "financials": {
        "fiscalYear": 2024,
        "revenue": 8000000,
        "expenses": 4500000,
        "profit": 3500000,
        "currency": "GBP",
        "investors": [
            {
                "name": "Global Tech Fund",
                "investment": 2000000,
                "equity": 15
            },
            {
                "name": "Startup Angels",
                "investment": 750000,
                "equity": 7
            }
        ]
    }
}

```

5.6. Response Body

```
{
    "companies": [
        {
            "name": "Tech Solutions Inc.",
            "founded": 1998,
            "employees": [
                {
                    "id": 1,
                    "name": "Alice Smith",
                    "title": "CEO",
                    "contact": {
                        "email": "alice.smith@techsolutions.com",
                        "phone": "+1-555-1234",
                        "address": {
                            "street": "123 Tech Lane",
                            "city": "Innovate City",
                            "state": "CA",
                            "zip": "90001",
                            "coordinates": {
                                "lat": 34.0522,
                                "lng": -118.2437
                            }
                        }
                    }
                }
            ]
        }
    ]
}
```

```

        }
    },
    "projects": [
        {
            "projectId": "p-101",
            "name": "AI Assistant",
            "status": "active",
            "budget": 1200000.5,
            "milestones": [
                {
                    "milestoneId": "m-001",
                    "description": "Initial Research",
                    "dueDate": "2025-06-30",
                    "completed": true
                },
                {
                    "milestoneId": "m-002",
                    "description": "Prototype Development",
                    "dueDate": "2025-09-15",
                    "completed": false
                }
            ]
        }
    ],
    {
        "id": 2,
        "name": "Bob Johnson",
        "title": "CTO",
        "contact": {
            "email": "bob.johnson@techsolutions.com",
            "phone": "+1-555-5678",
            "address": {
                "street": "456 Dev Avenue",
                "city": "Code Town",
                "state": "NY",
                "zip": "10001",
                "coordinates": {
                    "lat": 40.7128,
                    "lng": -74.006
                }
            }
        },
        "projects": []
    }
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {

```

```
"teamName": "Backend",
"members": [
    "Charlie",
    "Dana",
    "Eli"
],
"technologies": [
    "Node.js",
    "Python",
    "PostgreSQL"
]
},
{
    "teamName": "Frontend",
    "members": [
        "Fiona",
        "George"
    ],
    "technologies": [
        "React",
        "Vue",
        "HTML5",
        "CSS3"
    ]
}
],
"hr": {
    "head": "Grace Lee",
    "teams": []
}
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
```

```
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "contact": {
                "email": "jane.doe@futureinnovations.com",
                "phone": "+44-20-9876",
                "address": {
                    "street": "789 Future Blvd",
                    "city": "Tech Haven",
                    "state": "TX",
                    "zip": "73301",
                    "coordinates": {
                        "lat": 30.2672,
                        "lng": -97.7431
                    }
                }
            }
        ],
        {
            "id": 2,
            "name": "John Smith",
            "title": "CFO",
            "contact": {
                "email": "john.smith@futureinnovations.com",
                "phone": "+44-20-9877",
                "address": {
                    "street": "123 Main St",
                    "city": "Tech Haven",
                    "state": "TX",
                    "zip": "73301",
                    "coordinates": {
                        "lat": 30.2673,
                        "lng": -97.7432
                    }
                }
            }
        }
    ]
}
```

```

"projects": [
    {
        "projectId": "p-201",
        "name": "Smart Home Automation",
        "status": "completed",
        "budget": 2000000,
        "milestones": [
            {
                "milestoneId": "m-101",
                "description": "Market Research",
                "dueDate": "2024-05-15",
                "completed": true
            },
            {
                "milestoneId": "m-102",
                "description": "Prototype Deployment",
                "dueDate": "2024-12-01",
                "completed": true
            }
        ]
    }
],
{
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
                "lat": 30.2672,
                "lng": -97.7431
            }
        }
    },
    "projects": []
}
],
{
    "departments": {
        "engineering": {
            "head": "Mark Twain",
            "teams": [
                {
                    "teamName": "Cloud",
                    "members": [

```

```

        "Liam",
        "Emma",
        "Olivia"
    ],
    "technologies": [
        "AWS",
        "Azure",
        "Google Cloud"
    ]
},
{
    "teamName": "IoT",
    "members": [
        "Noah",
        "Ava"
    ],
    "technologies": [
        "Raspberry Pi",
        "Arduino",
        "MQTT"
    ]
}
]
},
"hr": {
    "head": "Sophie Turner",
    "teams": []
}
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {

```

```

        "available": true,
        "spots": 10
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
}

```

6. Convert JSON to XML

REST API endpoint for converting a JSON to XML.

6.1. CURL Request

```
$ curl 'http://localhost:8080/api/json/json-to-xml' -i -X POST \
-H 'Content-Type: application/json' \
-d '{
    "companies": [
        {
            "name": "Tech Solutions Inc.",
            "founded": 1998,
            "employees": [
                {
                    "id": 1,
                    "name": "Alice Smith",
                    "title": "CEO",
                    "contact": {
                        "phone": "+1 555-1234",
                        "email": "alice.smith@techsolutions.com"
                    }
                }
            ]
        }
    ]
}'
```

```
"email": "alice.smith@techsolutions.com",
"phone": "+1-555-1234",
"address": {
    "street": "123 Tech Lane",
    "city": "Innovate City",
    "state": "CA",
    "zip": "90001",
    "coordinates": {
        "lat": 34.0522,
        "lng": -118.2437
    }
},
"projects": [
    {
        "projectId": "p-101",
        "name": "AI Assistant",
        "status": "active",
        "budget": 1200000.5,
        "milestones": [
            {
                "milestoneId": "m-001",
                "description": "Initial Research",
                "dueDate": "2025-06-30",
                "completed": true
            },
            {
                "milestoneId": "m-002",
                "description": "Prototype Development",
                "dueDate": "2025-09-15",
                "completed": false
            }
        ]
    }
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    }
}
```

```
        }
    }
},
"projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            },
            {
                "teamName": "Frontend",
                "members": [
                    "Fiona",
                    "George"
                ],
                "technologies": [
                    "React",
                    "Vue",
                    "HTML5",
                    "CSS3"
                ]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "swimmingPool": false
    }
}
]
```

```

        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
},
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "contact": {
                "email": "jane.doe@futureinnovations.com",
                "phone": "+44-20-9876",
            }
        }
    ]
}

```

```
"address": {
    "street": "789 Future Blvd",
    "city": "Tech Haven",
    "state": "TX",
    "zip": "73301",
    "coordinates": {
        "lat": 30.2672,
        "lng": -97.7431
    }
},
"projects": [
{
    "projectId": "p-201",
    "name": "Smart Home Automation",
    "status": "completed",
    "budget": 2000000,
    "milestones": [
        {
            "milestoneId": "m-101",
            "description": "Market Research",
            "dueDate": "2024-05-15",
            "completed": true
        },
        {
            "milestoneId": "m-102",
            "description": "Prototype Deployment",
            "dueDate": "2024-12-01",
            "completed": true
        }
    ]
},
{
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
                "lat": 30.2672,
                "lng": -97.7431
            }
        }
    }
}
```

```
        },
        "projects": []
    }
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "technologies": [
                    "AWS",
                    "Azure",
                    "Google Cloud"
                ]
            },
            {
                "teamName": "IoT",
                "members": [
                    "Noah",
                    "Ava"
                ],
                "technologies": [
                    "Raspberry Pi",
                    "Arduino",
                    "MQTT"
                ]
            }
        ]
    },
    "hr": {
        "head": "Sophie Turner",
        "teams": []
    }
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
}]]
```

```

        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
},
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
}
'

```

6.2. HTTP Request

POST /api/json/json-to-xml HTTP/1.1

Content-Type: application/json

Content-Length: 8139

Host: localhost:8080

{

```
"companies": [
  {
    "name": "Tech Solutions Inc.",
    "founded": 1998,
    "employees": [
      {
        "id": 1,
        "name": "Alice Smith",
        "title": "CEO",
        "contact": {
          "email": "alice.smith@techsolutions.com",
          "phone": "+1-555-1234",
          "address": {
            "street": "123 Tech Lane",
            "city": "Innovate City",
            "state": "CA",
            "zip": "90001",
            "coordinates": {
              "lat": 34.0522,
              "lng": -118.2437
            }
          }
        }
      },
      "projects": [
        {
          "projectId": "p-101",
          "name": "AI Assistant",
          "status": "active",
          "budget": 1200000.5,
          "milestones": [
            {
              "milestoneId": "m-001",
              "description": "Initial Research",
              "dueDate": "2025-06-30",
              "completed": true
            },
            {
              "milestoneId": "m-002",
              "description": "Prototype Development",
              "dueDate": "2025-09-15",
              "completed": false
            }
          ]
        }
      ],
      {
        "id": 2,
        "name": "Bob Johnson",
        "title": "CTO",
        "contact": {

```

```
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        },
        "projects": []
    }
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            },
            {
                "teamName": "Frontend",
                "members": [
                    "Fiona",
                    "George"
                ],
                "technologies": [
                    "React",
                    "Vue",
                    "HTML5",
                    "CSS3"
                ]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
}
```

```

    }
},
"offices": [
{
  "location": "San Francisco",
  "capacity": 50,
  "openSince": "2010-05-15",
  "facilities": {
    "cafeteria": true,
    "gym": false,
    "parking": {
      "available": true,
      "spots": 20
    }
  }
},
{
  "location": "New York",
  "capacity": 30,
  "openSince": "2015-08-20",
  "facilities": {
    "cafeteria": true,
    "gym": true,
    "parking": {
      "available": false,
      "spots": 0
    }
  }
}
],
"financials": {
  "fiscalYear": 2024,
  "revenue": 5600000,
  "expenses": 3200000,
  "profit": 2400000,
  "currency": "USD",
  "investors": [
    {
      "name": "Capital Ventures",
      "investment": 1000000,
      "equity": 10
    },
    {
      "name": "Tech Angels",
      "investment": 500000,
      "equity": 5
    }
  ]
},
{

```

```
"name": "Future Innovations Ltd.",
"founded": 2005,
"employees": [
  {
    "id": 1,
    "name": "Jane Doe",
    "title": "Founder",
    "contact": {
      "email": "jane.doe@futureinnovations.com",
      "phone": "+44-20-9876",
      "address": {
        "street": "789 Future Blvd",
        "city": "Tech Haven",
        "state": "TX",
        "zip": "73301",
        "coordinates": {
          "lat": 30.2672,
          "lng": -97.7431
        }
      }
    },
    "projects": [
      {
        "projectId": "p-201",
        "name": "Smart Home Automation",
        "status": "completed",
        "budget": 2000000,
        "milestones": [
          {
            "milestoneId": "m-101",
            "description": "Market Research",
            "dueDate": "2024-05-15",
            "completed": true
          },
          {
            "milestoneId": "m-102",
            "description": "Prototype Deployment",
            "dueDate": "2024-12-01",
            "completed": true
          }
        ]
      }
    ],
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
      "email": "mark.twain@futureinnovations.com",
      "phone": "+44-20-5432",
      "address": {
        "street": "123 Tech Lane",
        "city": "Innovation City",
        "state": "TX",
        "zip": "75201",
        "coordinates": {
          "lat": 30.2555,
          "lng": -97.7555
        }
      }
    }
  }
]
```

```
"address": {
    "street": "321 Innovation Road",
    "city": "Tech Haven",
    "state": "TX",
    "zip": "73301",
    "coordinates": {
        "lat": 30.2672,
        "lng": -97.7431
    }
},
"projects": []
},
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "technologies": [
                    "AWS",
                    "Azure",
                    "Google Cloud"
                ]
            },
            {
                "teamName": "IoT",
                "members": [
                    "Noah",
                    "Ava"
                ],
                "technologies": [
                    "Raspberry Pi",
                    "Arduino",
                    "MQTT"
                ]
            }
        ]
    },
    "hr": {
        "head": "Sophie Turner",
        "teams": []
    }
},
"offices": [
```

```
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
```

6.3. Request Headers

Name	Description
Content-Type	The content type, which must be <code>application/json</code> .

6.4. Request Body

```
{
  "companies": [
    {
      "name": "Tech Solutions Inc.",
      "founded": 1998,
      "employees": [
        {
          "id": 1,
          "name": "Alice Smith",
          "title": "CEO",
          "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
              "street": "123 Tech Lane",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90001",
              "coordinates": {
                "lat": 34.0522,
                "lng": -118.2437
              }
            }
          },
        },
        "projects": [
          {
            "projectId": "p-101",
            "name": "AI Assistant",
            "status": "active",
            "budget": 1200000.5,
            "milestones": [
              {
                "milestoneId": "m-001",
                "description": "Initial Research",
                "dueDate": "2025-06-30",
                "completed": true
              },
              {
                "milestoneId": "m-002",
                "description": "Prototype Development",
                "dueDate": "2025-09-15",
                "completed": false
              }
            ]
          }
        ]
      }
    }
  ]
}
```

```

        "dueDate": "2025-09-15",
        "completed": false
    }
]
}
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            },
            {
                "teamName": "Frontend",
                "members": [
                    "Fiona",
                    "George"
                ],
                "technologies": [
                    "React.js",
                    "Angular",
                    "MongoDB"
                ]
            }
        ]
    }
}

```

```
    "technologies": [
        "React",
        "Vue",
        "HTML5",
        "CSS3"
    ],
},
],
},
"hr": {
    "head": "Grace Lee",
    "teams": []
},
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
},
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",

```

```

    "investment": 1000000,
    "equity": 10
  },
  {
    "name": "Tech Angels",
    "investment": 500000,
    "equity": 5
  }
]
},
{
  "name": "Future Innovations Ltd.",
  "founded": 2005,
  "employees": [
    {
      "id": 1,
      "name": "Jane Doe",
      "title": "Founder",
      "contact": {
        "email": "jane.doe@futureinnovations.com",
        "phone": "+44-20-9876",
        "address": {
          "street": "789 Future Blvd",
          "city": "Tech Haven",
          "state": "TX",
          "zip": "73301",
          "coordinates": {
            "lat": 30.2672,
            "lng": -97.7431
          }
        }
      }
    ],
    "projects": [
      {
        "projectId": "p-201",
        "name": "Smart Home Automation",
        "status": "completed",
        "budget": 2000000,
        "milestones": [
          {
            "milestoneId": "m-101",
            "description": "Market Research",
            "dueDate": "2024-05-15",
            "completed": true
          },
          {
            "milestoneId": "m-102",
            "description": "Prototype Deployment",
            "dueDate": "2024-12-01",
            "completed": true
          }
        ]
      }
    ]
  }
}

```

```

        }
    ]
}
],
{
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
                "lat": 30.2672,
                "lng": -97.7431
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "technologies": [
                    "AWS",
                    "Azure",
                    "Google Cloud"
                ]
            },
            {
                "teamName": "IoT",
                "members": [
                    "Noah",
                    "Ava"
                ],
                "technologies": [
                    "Raspberry Pi",

```

```

        "Arduino",
        "MQTT"
    ]
}
],
},
"hr": {
    "head": "Sophie Turner",
    "teams": []
}
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
    {
        "name": "Global Tech Fund",
        "investment": 2000000,
        "equity": 15
    },

```

```

    {
      "name": "Startup Angels",
      "investment": 750000,
      "equity": 7
    }
  ]
}
]
}

```

6.5. HTTP Response

HTTP/1.1 200 OK
 Content-Type: text/plain; charset=UTF-8
 Content-Length: 8775

```

<companies>
  <company>
    <name>Tech Solutions Inc.</name>
    <founded>1998</founded>
    <employees>
      <employee>
        <id>1</id>
        <name>Alice Smith</name>
        <title>CEO</title>
        <contact>
          <email>alice.smith@techsolutions.com</email>
          <phone>+1-555-1234</phone>
          <address>
            <street>123 Tech Lane</street>
            <city>Innovate City</city>
            <state>CA</state>
            <zip>90001</zip>
            <coordinates>
              <lat>34.0522</lat>
              <lng>-118.2437</lng>
            </coordinates>
          </address>
        </contact>
      </employee>
    </employees>
  </company>
</companies>

```

```
<description>Initial Research</description>
<dueDate>2025-06-30</dueDate>
<completed>true</completed>
</milestone>
<milestone>
  <milestoneId>m-002</milestoneId>
  <description>Prototype Development</description>
  <dueDate>2025-09-15</dueDate>
  <completed>false</completed>
</milestone>
</milestones>
</project>
</projects>
</employee>
<employee>
  <id>2</id>
  <name>Bob Johnson</name>
  <title>CTO</title>
  <contact>
    <email>bob.johnson@techsolutions.com</email>
    <phone>+1-555-5678</phone>
    <address>
      <street>456 Dev Avenue</street>
      <city>Code Town</city>
      <state>NY</state>
      <zip>10001</zip>
      <coordinates>
        <lat>40.7128</lat>
        <lng>-74.006</lng>
      </coordinates>
    </address>
  </contact>
  <projects/>
</employee>
</employees>
<departments>
  <engineering>
    <head>Bob Johnson</head>
    <teams>
      <team>
        <teamName>Backend</teamName>
        <members>
          <member>Charlie</member>
          <member>Dana</member>
          <member>Eli</member>
        </members>
        <technologies>
          <technology>Node.js</technology>
          <technology>Python</technology>
          <technology>PostgreSQL</technology>
        </technologies>
      </team>
    </teams>
  </engineering>
</departments>
```

```
</team>
<team>
  <teamName>Frontend</teamName>
  <members>
    <member>Fiona</member>
    <member>George</member>
  </members>
  <technologies>
    <technology>React</technology>
    <technology>Vue</technology>
    <technology>HTML5</technology>
    <technology>CSS3</technology>
  </technologies>
</team>
</teams>
</engineering>
<hr>
  <head>Grace Lee</head>
  <teams/>
</hr>
</departments>
<offices>
  <office>
    <location>San Francisco</location>
    <capacity>50</capacity>
    <openSince>2010-05-15</openSince>
    <facilities>
      <cafeteria>true</cafeteria>
      <gym>false</gym>
      <parking>
        <available>true</available>
        <spots>20</spots>
      </parking>
    </facilities>
  </office>
  <office>
    <location>New York</location>
    <capacity>30</capacity>
    <openSince>2015-08-20</openSince>
    <facilities>
      <cafeteria>true</cafeteria>
      <gym>true</gym>
      <parking>
        <available>false</available>
        <spots>0</spots>
      </parking>
    </facilities>
  </office>
</offices>
<financials>
  <fiscalYear>2024</fiscalYear>
```

```

<revenue>5600000</revenue>
<expenses>3200000</expenses>
<profit>2400000</profit>
<currency>USD</currency>
<investors>
  <investor>
    <name>Capital Ventures</name>
    <investment>1000000</investment>
    <equity>10</equity>
  </investor>
  <investor>
    <name>Tech Angels</name>
    <investment>500000</investment>
    <equity>5</equity>
  </investor>
</investors>
</financials>
</company>

<company>
  <name>Future Innovations Ltd.</name>
  <founded>2005</founded>
  <employees>
    <employee>
      <id>1</id>
      <name>Jane Doe</name>
      <title>Founder</title>
      <contact>
        <email>jane.doe@futureinnovations.com</email>
        <phone>+44-20-9876</phone>
        <address>
          <street>789 Future Blvd</street>
          <city>Tech Haven</city>
          <state>TX</state>
          <zip>73301</zip>
          <coordinates>
            <lat>30.2672</lat>
            <lng>-97.7431</lng>
          </coordinates>
        </address>
      </contact>
    </employee>
  </employees>
  <projects>
    <project>
      <projectId>p-201</projectId>
      <name>Smart Home Automation</name>
      <status>completed</status>
      <budget>2000000</budget>
      <milestones>
        <milestone>
          <milestoneId>m-101</milestoneId>
          <description>Market Research</description>
        </milestone>
      </milestones>
    </project>
  </projects>
</company>

```

```
<dueDate>2024-05-15</dueDate>
<completed>true</completed>
</milestone>
<milestone>
  <milestoneId>m-102</milestoneId>
  <description>Prototype Deployment</description>
  <dueDate>2024-12-01</dueDate>
  <completed>true</completed>
</milestone>
</milestones>
</project>
</projects>
</employee>
<employee>
  <id>2</id>
  <name>Mark Twain</name>
  <title>COO</title>
  <contact>
    <email>mark.twain@futureinnovations.com</email>
    <phone>+44-20-5432</phone>
    <address>
      <street>321 Innovation Road</street>
      <city>Tech Haven</city>
      <state>TX</state>
      <zip>73301</zip>
      <coordinates>
        <lat>30.2672</lat>
        <lng>-97.7431</lng>
      </coordinates>
    </address>
  </contact>
  <projects/>
</employee>
</employees>
<departments>
  <engineering>
    <head>Mark Twain</head>
    <teams>
      <team>
        <teamName>Cloud</teamName>
        <members>
          <member>Liam</member>
          <member>Emma</member>
          <member>Olivia</member>
        </members>
        <technologies>
          <technology>AWS</technology>
          <technology>Azure</technology>
          <technology>Google Cloud</technology>
        </technologies>
      </team>
    </teams>
  </engineering>
</departments>
```

```
<team>
  <teamName>IoT</teamName>
  <members>
    <member>Noah</member>
    <member>Ava</member>
  </members>
  <technologies>
    <technology>Raspberry Pi</technology>
    <technology>Arduino</technology>
    <technology>MQTT</technology>
  </technologies>
</team>
</teams>
</engineering>
<hr>
  <head>Sophie Turner</head>
  <teams/>
</hr>
</departments>
<offices>
  <office>
    <location>Austin</location>
    <capacity>40</capacity>
    <openSince>2018-03-10</openSince>
    <facilities>
      <cafeteria>true</cafeteria>
      <gym>true</gym>
      <parking>
        <available>true</available>
        <spots>25</spots>
      </parking>
    </facilities>
  </office>
  <office>
    <location>London</location>
    <capacity>20</capacity>
    <openSince>2021-11-05</openSince>
    <facilities>
      <cafeteria>true</cafeteria>
      <gym>false</gym>
      <parking>
        <available>true</available>
        <spots>10</spots>
      </parking>
    </facilities>
  </office>
</offices>
<financials>
  <fiscalYear>2024</fiscalYear>
  <revenue>8000000</revenue>
  <expenses>4500000</expenses>
```

```

<profit>3500000</profit>
<currency>GBP</currency>
<investors>
  <investor>
    <name>Global Tech Fund</name>
    <investment>2000000</investment>
    <equity>15</equity>
  </investor>
  <investor>
    <name>Startup Angels</name>
    <investment>750000</investment>
    <equity>7</equity>
  </investor>
</investors>
</financials>
</company>
</companies>

```

6.6. Response Body

```

<companies>
  <company>
    <name>Tech Solutions Inc.</name>
    <founded>1998</founded>
    <employees>
      <employee>
        <id>1</id>
        <name>Alice Smith</name>
        <title>CEO</title>
        <contact>
          <email>alice.smith@techsolutions.com</email>
          <phone>+1-555-1234</phone>
          <address>
            <street>123 Tech Lane</street>
            <city>Innovate City</city>
            <state>CA</state>
            <zip>90001</zip>
            <coordinates>
              <lat>34.0522</lat>
              <lng>-118.2437</lng>
            </coordinates>
          </address>
        </contact>
      </employee>
    </employees>
    <projects>
      <project>
        <projectId>p-101</projectId>
        <name>AI Assistant</name>
        <status>active</status>
        <budget>1200000.5</budget>
      </project>
    </projects>
  </company>
</companies>

```

```
<milestones>
  <milestone>
    <milestoneId>m-001</milestoneId>
    <description>Initial Research</description>
    <dueDate>2025-06-30</dueDate>
    <completed>true</completed>
  </milestone>
  <milestone>
    <milestoneId>m-002</milestoneId>
    <description>Prototype Development</description>
    <dueDate>2025-09-15</dueDate>
    <completed>false</completed>
  </milestone>
</milestones>
</project>
</projects>
</employee>
<employee>
  <id>2</id>
  <name>Bob Johnson</name>
  <title>CTO</title>
  <contact>
    <email>bob.johnson@techsolutions.com</email>
    <phone>+1-555-5678</phone>
    <address>
      <street>456 Dev Avenue</street>
      <city>Code Town</city>
      <state>NY</state>
      <zip>10001</zip>
      <coordinates>
        <lat>40.7128</lat>
        <lng>-74.006</lng>
      </coordinates>
    </address>
  </contact>
  <projects/>
</employee>
</employees>
<departments>
  <engineering>
    <head>Bob Johnson</head>
    <teams>
      <team>
        <teamName>Backend</teamName>
        <members>
          <member>Charlie</member>
          <member>Dana</member>
          <member>Eli</member>
        </members>
      </team>
    <technologies>
      <technology>Node.js</technology>
    </technologies>
  </engineering>
</departments>
```

```
<technology>Python</technology>
<technology>PostgreSQL</technology>
</technologies>
</team>
<team>
  <teamName>Frontend</teamName>
  <members>
    <member>Fiona</member>
    <member>George</member>
  </members>
  <technologies>
    <technology>React</technology>
    <technology>Vue</technology>
    <technology>HTML5</technology>
    <technology>CSS3</technology>
  </technologies>
</team>
</teams>
</engineering>
<hr>
  <head>Grace Lee</head>
  <teams/>
</hr>
</departments>
<offices>
  <office>
    <location>San Francisco</location>
    <capacity>50</capacity>
    <openSince>2010-05-15</openSince>
    <facilities>
      <cafeteria>true</cafeteria>
      <gym>false</gym>
      <parking>
        <available>true</available>
        <spots>20</spots>
      </parking>
    </facilities>
  </office>
  <office>
    <location>New York</location>
    <capacity>30</capacity>
    <openSince>2015-08-20</openSince>
    <facilities>
      <cafeteria>true</cafeteria>
      <gym>true</gym>
      <parking>
        <available>false</available>
        <spots>0</spots>
      </parking>
    </facilities>
  </office>
```

```

</offices>
<financials>
    <fiscalYear>2024</fiscalYear>
    <revenue>5600000</revenue>
    <expenses>3200000</expenses>
    <profit>2400000</profit>
    <currency>USD</currency>
    <investors>
        <investor>
            <name>Capital Ventures</name>
            <investment>1000000</investment>
            <equity>10</equity>
        </investor>
        <investor>
            <name>Tech Angels</name>
            <investment>500000</investment>
            <equity>5</equity>
        </investor>
    </investors>
</financials>
</company>

<company>
    <name>Future Innovations Ltd.</name>
    <founded>2005</founded>
    <employees>
        <employee>
            <id>1</id>
            <name>Jane Doe</name>
            <title>Founder</title>
            <contact>
                <email>jane.doe@futureinnovations.com</email>
                <phone>+44-20-9876</phone>
                <address>
                    <street>789 Future Blvd</street>
                    <city>Tech Haven</city>
                    <state>TX</state>
                    <zip>73301</zip>
                    <coordinates>
                        <lat>30.2672</lat>
                        <lng>-97.7431</lng>
                    </coordinates>
                </address>
            </contact>
        </employee>
    </employees>
    <projects>
        <project>
            <projectId>p-201</projectId>
            <name>Smart Home Automation</name>
            <status>completed</status>
            <budget>2000000</budget>
            <milestones>

```

```
<milestone>
    <milestoneId>m-101</milestoneId>
    <description>Market Research</description>
    <dueDate>2024-05-15</dueDate>
    <completed>true</completed>
</milestone>
<milestone>
    <milestoneId>m-102</milestoneId>
    <description>Prototype Deployment</description>
    <dueDate>2024-12-01</dueDate>
    <completed>true</completed>
</milestone>
</milestones>
</project>
</projects>
</employee>
<employee>
    <id>2</id>
    <name>Mark Twain</name>
    <title>COO</title>
    <contact>
        <email>mark.twain@futureinnovations.com</email>
        <phone>+44-20-5432</phone>
        <address>
            <street>321 Innovation Road</street>
            <city>Tech Haven</city>
            <state>TX</state>
            <zip>73301</zip>
            <coordinates>
                <lat>30.2672</lat>
                <lng>-97.7431</lng>
            </coordinates>
        </address>
    </contact>
    <projects/>
</employee>
</employees>
<departments>
    <engineering>
        <head>Mark Twain</head>
        <teams>
            <team>
                <teamName>Cloud</teamName>
                <members>
                    <member>Liam</member>
                    <member>Emma</member>
                    <member>Olivia</member>
                </members>
                <technologies>
                    <technology>AWS</technology>
                    <technology>Azure</technology>
                </technologies>
            </team>
        </teams>
    </engineering>
</departments>
```

```
<technology>Google Cloud</technology>
</technologies>
</team>
<team>
  <teamName>IoT</teamName>
  <members>
    <member>Noah</member>
    <member>Ava</member>
  </members>
  <technologies>
    <technology>Raspberry Pi</technology>
    <technology>Arduino</technology>
    <technology>MQTT</technology>
  </technologies>
</team>
</teams>
</engineering>
<hr>
  <head>Sophie Turner</head>
  <teams/>
</hr>
</departments>
<offices>
  <office>
    <location>Austin</location>
    <capacity>40</capacity>
    <openSince>2018-03-10</openSince>
    <facilities>
      <cafeteria>true</cafeteria>
      <gym>true</gym>
      <parking>
        <available>true</available>
        <spots>25</spots>
      </parking>
    </facilities>
  </office>
  <office>
    <location>London</location>
    <capacity>20</capacity>
    <openSince>2021-11-05</openSince>
    <facilities>
      <cafeteria>true</cafeteria>
      <gym>false</gym>
      <parking>
        <available>true</available>
        <spots>10</spots>
      </parking>
    </facilities>
  </office>
</offices>
<financials>
```

```

<fiscalYear>2024</fiscalYear>
<revenue>8000000</revenue>
<expenses>4500000</expenses>
<profit>3500000</profit>
<currency>GBP</currency>
<investors>
  <investor>
    <name>Global Tech Fund</name>
    <investment>2000000</investment>
    <equity>15</equity>
  </investor>
  <investor>
    <name>Startup Angels</name>
    <investment>750000</investment>
    <equity>7</equity>
  </investor>
</investors>
</financials>
</company>
</companies>

```

7. Convert XML to JSON

REST API endpoint for converting XML to a JSON

7.1. CURL Request

```

$ curl 'http://localhost:8080/api/json/xml-to-json' -i -X POST \
-H 'Content-Type: application/xml' \
-d '<companies>
<company>
  <name>Tech Solutions Inc.</name>
  <founded>1998</founded>
  <employees>
    <employee>
      <id>1</id>
      <name>Alice Smith</name>
      <title>CEO</title>
      <contact>
        <email>alice.smith@techsolutions.com</email>
        <phone>+1-555-1234</phone>
        <address>
          <street>123 Tech Lane</street>
          <city>Innovate City</city>
          <state>CA</state>
          <zip>90001</zip>
          <coordinates>
            <lat>34.0522</lat>

```

```
        <lng>-118.2437</lng>
    </coordinates>
</address>
</contact>
<projects>
    <project>
        <projectId>p-101</projectId>
        <name>AI Assistant</name>
        <status>active</status>
        <budget>1200000.5</budget>
        <milestones>
            <milestone>
                <milestoneId>m-001</milestoneId>
                <description>Initial Research</description>
                <dueDate>2025-06-30</dueDate>
                <completed>true</completed>
            </milestone>
            <milestone>
                <milestoneId>m-002</milestoneId>
                <description>Prototype Development</description>
                <dueDate>2025-09-15</dueDate>
                <completed>false</completed>
            </milestone>
        </milestones>
    </project>
</projects>
</employee>
<employee>
    <id>2</id>
    <name>Bob Johnson</name>
    <title>CTO</title>
    <contact>
        <email>bob.johnson@techsolutions.com</email>
        <phone>+1-555-5678</phone>
        <address>
            <street>456 Dev Avenue</street>
            <city>Code Town</city>
            <state>NY</state>
            <zip>10001</zip>
            <coordinates>
                <lat>40.7128</lat>
                <lng>-74.006</lng>
            </coordinates>
        </address>
    </contact>
    <projects/>
</employee>
</employees>
<departments>
    <engineering>
        <head>Bob Johnson</head>
```

```
<teams>
  <team>
    <teamName>Backend</teamName>
    <members>
      <member>Charlie</member>
      <member>Dana</member>
      <member>Eli</member>
    </members>
    <technologies>
      <technology>Node.js</technology>
      <technology>Python</technology>
      <technology>PostgreSQL</technology>
    </technologies>
  </team>
  <team>
    <teamName>Frontend</teamName>
    <members>
      <member>Fiona</member>
      <member>George</member>
    </members>
    <technologies>
      <technology>React</technology>
      <technology>Vue</technology>
      <technology>HTML5</technology>
      <technology>CSS3</technology>
    </technologies>
  </team>
</teams>
</engineering>
<hr>
  <head>Grace Lee</head>
  <teams/>
</hr>
</departments>
<offices>
  <office>
    <location>San Francisco</location>
    <capacity>50</capacity>
    <openSince>2010-05-15</openSince>
    <facilities>
      <cafeteria>true</cafeteria>
      <gym>false</gym>
      <parking>
        <available>true</available>
        <spots>20</spots>
      </parking>
    </facilities>
  </office>
  <office>
    <location>New York</location>
    <capacity>30</capacity>
```

```

<openSince>2015-08-20</openSince>
<facilities>
  <cafeteria>true</cafeteria>
  <gym>true</gym>
  <parking>
    <available>false</available>
    <spots>0</spots>
  </parking>
</facilities>
</office>
</offices>
<financials>
  <fiscalYear>2024</fiscalYear>
  <revenue>5600000</revenue>
  <expenses>3200000</expenses>
  <profit>2400000</profit>
  <currency>USD</currency>
  <investors>
    <investor>
      <name>Capital Ventures</name>
      <investment>1000000</investment>
      <equity>10</equity>
    </investor>
    <investor>
      <name>Tech Angels</name>
      <investment>500000</investment>
      <equity>5</equity>
    </investor>
  </investors>
</financials>
</company>

<company>
  <name>Future Innovations Ltd.</name>
  <founded>2005</founded>
  <employees>
    <employee>
      <id>1</id>
      <name>Jane Doe</name>
      <title>Founder</title>
      <contact>
        <email>jane.doe@futureinnovations.com</email>
        <phone>+44-20-9876</phone>
        <address>
          <street>789 Future Blvd</street>
          <city>Tech Haven</city>
          <state>TX</state>
          <zip>73301</zip>
        <coordinates>
          <lat>30.2672</lat>
          <lng>-97.7431</lng>
        </coordinates>
      </contact>
    </employee>
  </employees>
</company>

```

```

        </coordinates>
    </address>
</contact>
<projects>
    <project>
        <projectId>p-201</projectId>
        <name>Smart Home Automation</name>
        <status>completed</status>
        <budget>2000000</budget>
        <milestones>
            <milestone>
                <milestoneId>m-101</milestoneId>
                <description>Market Research</description>
                <dueDate>2024-05-15</dueDate>
                <completed>true</completed>
            </milestone>
            <milestone>
                <milestoneId>m-102</milestoneId>
                <description>Prototype Deployment</description>
                <dueDate>2024-12-01</dueDate>
                <completed>true</completed>
            </milestone>
        </milestones>
    </project>
</projects>
</employee>
<employee>
    <id>2</id>
    <name>Mark Twain</name>
    <title>COO</title>
    <contact>
        <email>mark.twain@futureinnovations.com</email>
        <phone>+44-20-5432</phone>
        <address>
            <street>321 Innovation Road</street>
            <city>Tech Haven</city>
            <state>TX</state>
            <zip>73301</zip>
            <coordinates>
                <lat>30.2672</lat>
                <lng>-97.7431</lng>
            </coordinates>
        </address>
    </contact>
    <projects/>
</employee>
</employees>
<departments>
    <engineering>
        <head>Mark Twain</head>
        <teams>

```

```

<team>
  <teamName>Cloud</teamName>
  <members>
    <member>Liam</member>
    <member>Emma</member>
    <member>Olivia</member>
  </members>
  <technologies>
    <technology>AWS</technology>
    <technology>Azure</technology>
    <technology>Google Cloud</technology>
  </technologies>
</team>
<team>
  <teamName>IoT</teamName>
  <members>
    <member>Noah</member>
    <member>Ava</member>
  </members>
  <technologies>
    <technology>Raspberry Pi</technology>
    <technology>Arduino</technology>
    <technology>MQTT</technology>
  </technologies>
</team>
</teams>
</engineering>
<hr>
  <head>Sophie Turner</head>
  <teams/>
</hr>
</departments>
<offices>
  <office>
    <location>Austin</location>
    <capacity>40</capacity>
    <openSince>2018-03-10</openSince>
    <facilities>
      <cafeteria>true</cafeteria>
      <gym>true</gym>
      <parking>
        <available>true</available>
        <spots>25</spots>
      </parking>
    </facilities>
  </office>
  <office>
    <location>London</location>
    <capacity>20</capacity>
    <openSince>2021-11-05</openSince>
    <facilities>

```

```

<cafeteria>true</cafeteria>
<gym>false</gym>
<parking>
    <available>true</available>
    <spots>10</spots>
</parking>
</facilities>
</office>
</offices>
<financials>
    <fiscalYear>2024</fiscalYear>
    <revenue>8000000</revenue>
    <expenses>4500000</expenses>
    <profit>3500000</profit>
    <currency>GBP</currency>
    <investors>
        <investor>
            <name>Global Tech Fund</name>
            <investment>2000000</investment>
            <equity>15</equity>
        </investor>
        <investor>
            <name>Startup Angels</name>
            <investment>750000</investment>
            <equity>7</equity>
        </investor>
    </investors>
</financials>
</company>
</companies>
'
```

7.2. HTTP Request

```

POST /api/json/xml-to-json HTTP/1.1
Content-Type: application/xml
Content-Length: 8775
Host: localhost:8080

```

```

<companies>
    <company>
        <name>Tech Solutions Inc.</name>
        <founded>1998</founded>
        <employees>
            <employee>
                <id>1</id>
                <name>Alice Smith</name>
                <title>CEO</title>
                <contact>

```

```
<email>alice.smith@techsolutions.com</email>
<phone>+1-555-1234</phone>
<address>
  <street>123 Tech Lane</street>
  <city>Innovate City</city>
  <state>CA</state>
  <zip>90001</zip>
  <coordinates>
    <lat>34.0522</lat>
    <lng>-118.2437</lng>
  </coordinates>
</address>
</contact>
<projects>
  <project>
    <projectId>p-101</projectId>
    <name>AI Assistant</name>
    <status>active</status>
    <budget>1200000.5</budget>
    <milestones>
      <milestone>
        <milestoneId>m-001</milestoneId>
        <description>Initial Research</description>
        <dueDate>2025-06-30</dueDate>
        <completed>true</completed>
      </milestone>
      <milestone>
        <milestoneId>m-002</milestoneId>
        <description>Prototype Development</description>
        <dueDate>2025-09-15</dueDate>
        <completed>false</completed>
      </milestone>
    </milestones>
  </project>
</projects>
</employee>
<employee>
  <id>2</id>
  <name>Bob Johnson</name>
  <title>CTO</title>
  <contact>
    <email>bob.johnson@techsolutions.com</email>
    <phone>+1-555-5678</phone>
    <address>
      <street>456 Dev Avenue</street>
      <city>Code Town</city>
      <state>NY</state>
      <zip>10001</zip>
      <coordinates>
        <lat>40.7128</lat>
        <lng>-74.006</lng>
      </coordinates>
    </address>
  </contact>
</employee>
```

```
</coordinates>
</address>
</contact>
<projects/>
</employee>
</employees>
<departments>
<engineering>
<head>Bob Johnson</head>
<teams>
<team>
<teamName>Backend</teamName>
<members>
<member>Charlie</member>
<member>Dana</member>
<member>Eli</member>
</members>
<technologies>
<technology>Node.js</technology>
<technology>Python</technology>
<technology>PostgreSQL</technology>
</technologies>
</team>
<team>
<teamName>Frontend</teamName>
<members>
<member>Fiona</member>
<member>George</member>
</members>
<technologies>
<technology>React</technology>
<technology>Vue</technology>
<technology>HTML5</technology>
<technology>CSS3</technology>
</technologies>
</team>
</teams>
</engineering>
<hr>
<head>Grace Lee</head>
<teams/>
</hr>
</departments>
<offices>
<office>
<location>San Francisco</location>
<capacity>50</capacity>
<openSince>2010-05-15</openSince>
<facilities>
<cafeteria>true</cafeteria>
<gym>false</gym>
```

```

<parking>
  <available>true</available>
  <spots>20</spots>
</parking>
</facilities>
</office>
<office>
  <location>New York</location>
  <capacity>30</capacity>
  <openSince>2015-08-20</openSince>
  <facilities>
    <cafeteria>true</cafeteria>
    <gym>true</gym>
    <parking>
      <available>false</available>
      <spots>0</spots>
    </parking>
  </facilities>
</office>
</offices>
<financials>
  <fiscalYear>2024</fiscalYear>
  <revenue>5600000</revenue>
  <expenses>3200000</expenses>
  <profit>2400000</profit>
  <currency>USD</currency>
  <investors>
    <investor>
      <name>Capital Ventures</name>
      <investment>1000000</investment>
      <equity>10</equity>
    </investor>
    <investor>
      <name>Tech Angels</name>
      <investment>500000</investment>
      <equity>5</equity>
    </investor>
  </investors>
</financials>
</company>

<company>
  <name>Future Innovations Ltd.</name>
  <founded>2005</founded>
  <employees>
    <employee>
      <id>1</id>
      <name>Jane Doe</name>
      <title>Founder</title>
      <contact>
        <email>jane.doe@futureinnovations.com</email>
      </contact>
    </employee>
  </employees>
</company>

```

```

<phone>+44-20-9876</phone>
<address>
  <street>789 Future Blvd</street>
  <city>Tech Haven</city>
  <state>TX</state>
  <zip>73301</zip>
  <coordinates>
    <lat>30.2672</lat>
    <lng>-97.7431</lng>
  </coordinates>
</address>
</contact>
</employee>
<employee>
  <id>2</id>
  <name>Mark Twain</name>
  <title>COO</title>
  <contact>
    <email>mark.twain@futureinnovations.com</email>
    <phone>+44-20-5432</phone>
    <address>
      <street>321 Innovation Road</street>
      <city>Tech Haven</city>
      <state>TX</state>
      <zip>73301</zip>
      <coordinates>
        <lat>30.2672</lat>
        <lng>-97.7431</lng>
      </coordinates>
    </address>
  </contact>
</employee>

```

```

        </address>
    </contact>
    <projects/>
</employee>
</employees>
<departments>
    <engineering>
        <head>Mark Twain</head>
        <teams>
            <team>
                <teamName>Cloud</teamName>
                <members>
                    <member>Liam</member>
                    <member>Emma</member>
                    <member>Olivia</member>
                </members>
                <technologies>
                    <technology>AWS</technology>
                    <technology>Azure</technology>
                    <technology>Google Cloud</technology>
                </technologies>
            </team>
            <team>
                <teamName>IoT</teamName>
                <members>
                    <member>Noah</member>
                    <member>Ava</member>
                </members>
                <technologies>
                    <technology>Raspberry Pi</technology>
                    <technology>Arduino</technology>
                    <technology>MQTT</technology>
                </technologies>
            </team>
        </teams>
    </engineering>
    <hr>
        <head>Sophie Turner</head>
        <teams/>
    </hr>
</departments>
<offices>
    <office>
        <location>Austin</location>
        <capacity>40</capacity>
        <openSince>2018-03-10</openSince>
        <facilities>
            <cafeteria>true</cafeteria>
            <gym>true</gym>
            <parking>
                <available>true</available>

```

```

    <spots>25</spots>
  </parking>
  </facilities>
</office>
<office>
  <location>London</location>
  <capacity>20</capacity>
  <openSince>2021-11-05</openSince>
  <facilities>
    <cafeteria>true</cafeteria>
    <gym>false</gym>
    <parking>
      <available>true</available>
      <spots>10</spots>
    </parking>
  </facilities>
</office>
</offices>
<financials>
  <fiscalYear>2024</fiscalYear>
  <revenue>8000000</revenue>
  <expenses>4500000</expenses>
  <profit>3500000</profit>
  <currency>GBP</currency>
  <investors>
    <investor>
      <name>Global Tech Fund</name>
      <investment>2000000</investment>
      <equity>15</equity>
    </investor>
    <investor>
      <name>Startup Angels</name>
      <investment>750000</investment>
      <equity>7</equity>
    </investor>
  </investors>
</financials>
</company>
</companies>

```

7.3. Request Headers

Name	Description
Content-Type	The content type, which must be <code>application/xml</code> .

7.4. Request Body

```
<companies>
  <company>
    <name>Tech Solutions Inc.</name>
    <founded>1998</founded>
    <employees>
      <employee>
        <id>1</id>
        <name>Alice Smith</name>
        <title>CEO</title>
        <contact>
          <email>alice.smith@techsolutions.com</email>
          <phone>+1-555-1234</phone>
          <address>
            <street>123 Tech Lane</street>
            <city>Innovate City</city>
            <state>CA</state>
            <zip>90001</zip>
            <coordinates>
              <lat>34.0522</lat>
              <lng>-118.2437</lng>
            </coordinates>
          </address>
        </contact>
      </employee>
    </employees>
    <projects>
      <project>
        <projectId>p-101</projectId>
        <name>AI Assistant</name>
        <status>active</status>
        <budget>1200000.5</budget>
        <milestones>
          < milestone>
            < milestoneId>m-001</ milestoneId>
            < description>Initial Research</description>
            < dueDate>2025-06-30</dueDate>
            < completed>true</completed>
          </ milestone>
          < milestone>
            < milestoneId>m-002</ milestoneId>
            < description>Prototype Development</description>
            < dueDate>2025-09-15</dueDate>
            < completed>false</completed>
          </ milestone>
        </ milestones>
      </ project>
    </ projects>
  </ company>
  < employee>
    < id>2</ id>
```

```
<name>Bob Johnson</name>
<title>CTO</title>
<contact>
  <email>bob.johnson@techsolutions.com</email>
  <phone>+1-555-5678</phone>
  <address>
    <street>456 Dev Avenue</street>
    <city>Code Town</city>
    <state>NY</state>
    <zip>10001</zip>
    <coordinates>
      <lat>40.7128</lat>
      <lng>-74.006</lng>
    </coordinates>
  </address>
</contact>
<projects/>
</employee>
</employees>
<departments>
  <engineering>
    <head>Bob Johnson</head>
    <teams>
      <team>
        <teamName>Backend</teamName>
        <members>
          <member>Charlie</member>
          <member>Dana</member>
          <member>Eli</member>
        </members>
        <technologies>
          <technology>Node.js</technology>
          <technology>Python</technology>
          <technology>PostgreSQL</technology>
        </technologies>
      </team>
      <team>
        <teamName>Frontend</teamName>
        <members>
          <member>Fiona</member>
          <member>George</member>
        </members>
        <technologies>
          <technology>React</technology>
          <technology>Vue</technology>
          <technology>HTML5</technology>
          <technology>CSS3</technology>
        </technologies>
      </team>
    </teams>
  </engineering>
</departments>
```

```
<hr>
  <head>Grace Lee</head>
  <teams/>
</hr>
</departments>
<offices>
  <office>
    <location>San Francisco</location>
    <capacity>50</capacity>
    <openSince>2010-05-15</openSince>
    <facilities>
      <cafeteria>true</cafeteria>
      <gym>false</gym>
      <parking>
        <available>true</available>
        <spots>20</spots>
      </parking>
    </facilities>
  </office>
  <office>
    <location>New York</location>
    <capacity>30</capacity>
    <openSince>2015-08-20</openSince>
    <facilities>
      <cafeteria>true</cafeteria>
      <gym>true</gym>
      <parking>
        <available>false</available>
        <spots>0</spots>
      </parking>
    </facilities>
  </office>
</offices>
<financials>
  <fiscalYear>2024</fiscalYear>
  <revenue>5600000</revenue>
  <expenses>3200000</expenses>
  <profit>2400000</profit>
  <currency>USD</currency>
  <investors>
    <investor>
      <name>Capital Ventures</name>
      <investment>1000000</investment>
      <equity>10</equity>
    </investor>
    <investor>
      <name>Tech Angels</name>
      <investment>500000</investment>
      <equity>5</equity>
    </investor>
  </investors>
</financials>
```

```
</financials>
</company>

<company>
  <name>Future Innovations Ltd.</name>
  <founded>2005</founded>
  <employees>
    <employee>
      <id>1</id>
      <name>Jane Doe</name>
      <title>Founder</title>
      <contact>
        <email>jane.doe@futureinnovations.com</email>
        <phone>+44-20-9876</phone>
        <address>
          <street>789 Future Blvd</street>
          <city>Tech Haven</city>
          <state>TX</state>
          <zip>73301</zip>
          <coordinates>
            <lat>30.2672</lat>
            <lng>-97.7431</lng>
          </coordinates>
        </address>
      </contact>
    </employee>
  </employees>
  <projects>
    <project>
      <projectId>p-201</projectId>
      <name>Smart Home Automation</name>
      <status>completed</status>
      <budget>2000000</budget>
      <milestones>
        < milestone>
          < milestoneId>m-101</ milestoneId>
          < description>Market Research</description>
          < dueDate>2024-05-15</dueDate>
          < completed>true</completed>
        </ milestone>
        < milestone>
          < milestoneId>m-102</ milestoneId>
          < description>Prototype Deployment</description>
          < dueDate>2024-12-01</dueDate>
          < completed>true</completed>
        </ milestone>
      </milestones>
    </project>
  </projects>
  <employee>
    <id>2</id>
    <name>Mark Twain</name>
  </employee>
</company>
```

```
<title>COO</title>
<contact>
  <email>mark.twain@futureinnovations.com</email>
  <phone>+44-20-5432</phone>
  <address>
    <street>321 Innovation Road</street>
    <city>Tech Haven</city>
    <state>TX</state>
    <zip>73301</zip>
    <coordinates>
      <lat>30.2672</lat>
      <lng>-97.7431</lng>
    </coordinates>
  </address>
</contact>
<projects/>
</employee>
</employees>
<departments>
  <engineering>
    <head>Mark Twain</head>
    <teams>
      <team>
        <teamName>Cloud</teamName>
        <members>
          <member>Liam</member>
          <member>Emma</member>
          <member>Olivia</member>
        </members>
        <technologies>
          <technology>AWS</technology>
          <technology>Azure</technology>
          <technology>Google Cloud</technology>
        </technologies>
      </team>
      <team>
        <teamName>IoT</teamName>
        <members>
          <member>Noah</member>
          <member>Ava</member>
        </members>
        <technologies>
          <technology>Raspberry Pi</technology>
          <technology>Arduino</technology>
          <technology>MQTT</technology>
        </technologies>
      </team>
    </teams>
  </engineering>
  <hr>
  <head>Sophie Turner</head>
```

```
<teams/>
</hr>
</departments>
<offices>
  <office>
    <location>Austin</location>
    <capacity>40</capacity>
    <openSince>2018-03-10</openSince>
    <facilities>
      <cafeteria>true</cafeteria>
      <gym>true</gym>
      <parking>
        <available>true</available>
        <spots>25</spots>
      </parking>
    </facilities>
  </office>
  <office>
    <location>London</location>
    <capacity>20</capacity>
    <openSince>2021-11-05</openSince>
    <facilities>
      <cafeteria>true</cafeteria>
      <gym>false</gym>
      <parking>
        <available>true</available>
        <spots>10</spots>
      </parking>
    </facilities>
  </office>
</offices>
<financials>
  <fiscalYear>2024</fiscalYear>
  <revenue>8000000</revenue>
  <expenses>4500000</expenses>
  <profit>3500000</profit>
  <currency>GBP</currency>
  <investors>
    <investor>
      <name>Global Tech Fund</name>
      <investment>2000000</investment>
      <equity>15</equity>
    </investor>
    <investor>
      <name>Startup Angels</name>
      <investment>750000</investment>
      <equity>7</equity>
    </investor>
  </investors>
</financials>
</company>
```

```
</companies>
```

7.5. HTTP Response

```
HTTP/1.1 200 OK
Content-Type: text/plain; charset=UTF-8
Content-Length: 10579

{
  "companies": [
    {
      "name": "Tech Solutions Inc.",
      "founded": 1998,
      "employees": [
        {
          "id": 1,
          "name": "Alice Smith",
          "title": "CEO",
          "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
              "street": "123 Tech Lane",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90001",
              "coordinates": {
                "lat": 34.0522,
                "lng": -118.2437
              }
            }
          },
        ],
      "projects": [
        {
          "projectId": "p-101",
          "name": "AI Assistant",
          "status": "active",
          "budget": 1200000.5,
          "milestones": [
            {
              "milestoneId": "m-001",
              "description": "Initial Research",
              "dueDate": "2025-06-30",
              "completed": true
            },
            {
              "milestoneId": "m-002",
              "description": "Prototype Development",
              "dueDate": "2025-09-15",
            }
          ]
        }
      ]
    }
  ]
}
```

```
        "completed": false
    }
]
}
]
},
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            },
            {
                "teamName": "Frontend",
                "members": [
                    "Fiona",
                    "George"
                ],
                "technologies": [

```

```
        "React",
        "Vue",
        "HTML5",
        "CSS3"
    ]
}
]
},
"hr": {
    "head": "Grace Lee",
    "teams": []
}
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
```

```
        "equity": 10
    },
    {
        "name": "Tech Angels",
        "investment": 500000,
        "equity": 5
    }
]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "contact": {
                "email": "jane.doe@futureinnovations.com",
                "phone": "+44-20-9876",
                "address": {
                    "street": "789 Future Blvd",
                    "city": "Tech Haven",
                    "state": "TX",
                    "zip": "73301",
                    "coordinates": {
                        "lat": 30.2672,
                        "lng": -97.7431
                    }
                }
            },
            "projects": [
                {
                    "projectId": "p-201",
                    "name": "Smart Home Automation",
                    "status": "completed",
                    "budget": 2000000,
                    "milestones": [
                        {
                            "milestoneId": "m-101",
                            "description": "Market Research",
                            "dueDate": "2024-05-15",
                            "completed": true
                        },
                        {
                            "milestoneId": "m-102",
                            "description": "Prototype Deployment",
                            "dueDate": "2024-12-01",
                            "completed": true
                        }
                    ]
                }
            ]
        }
    ]
}
```

```

        ]
    }
]
},
{
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
                "lat": 30.2672,
                "lng": -97.7431
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "technologies": [
                    "AWS",
                    "Azure",
                    "Google Cloud"
                ]
            },
            {
                "teamName": "IoT",
                "members": [
                    "Noah",
                    "Ava"
                ],
                "technologies": [
                    "Raspberry Pi",
                    "Arduino",

```

```
        "MQTT"
    ]
}
]
},
"hr": {
    "head": "Sophie Turner",
    "teams": []
}
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {

```

```

        "name": "Startup Angels",
        "investment": 750000,
        "equity": 7
    }
]
}
]
}

```

7.6. Response Body

```
{
  "companies": [
    {
      "name": "Tech Solutions Inc.",
      "founded": 1998,
      "employees": [
        {
          "id": 1,
          "name": "Alice Smith",
          "title": "CEO",
          "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
              "street": "123 Tech Lane",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90001",
              "coordinates": {
                "lat": 34.0522,
                "lng": -118.2437
              }
            }
          },
        },
        {
          "name": "Tech Solutions Inc."
        }
      ],
      "projects": [
        {
          "projectId": "p-101",
          "name": "AI Assistant",
          "status": "active",
          "budget": 1200000.5,
          "milestones": [
            {
              "milestoneId": "m-001",
              "description": "Initial Research",
              "dueDate": "2025-06-30",
              "completed": true
            },
            {
              "name": "Tech Solutions Inc."
            }
          ]
        }
      ]
    }
  ]
}
```

```

        {
          "milestoneId": "m-002",
          "description": "Prototype Development",
          "dueDate": "2025-09-15",
          "completed": false
        }
      ]
    }
  ]
},
{
  "id": 2,
  "name": "Bob Johnson",
  "title": "CTO",
  "contact": {
    "email": "bob.johnson@techsolutions.com",
    "phone": "+1-555-5678",
    "address": {
      "street": "456 Dev Avenue",
      "city": "Code Town",
      "state": "NY",
      "zip": "10001",
      "coordinates": {
        "lat": 40.7128,
        "lng": -74.006
      }
    }
  },
  "projects": []
}
],
"departments": {
  "engineering": {
    "head": "Bob Johnson",
    "teams": [
      {
        "teamName": "Backend",
        "members": [
          "Charlie",
          "Dana",
          "Eli"
        ],
        "technologies": [
          "Node.js",
          "Python",
          "PostgreSQL"
        ]
      },
      {
        "teamName": "Frontend",
        "members": [

```

```
        "Fiona",
        "George"
    ],
    "technologies": [
        "React",
        "Vue",
        "HTML5",
        "CSS3"
    ]
}
],
},
"hr": {
    "head": "Grace Lee",
    "teams": []
}
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
}
```

```

    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "contact": {
                "email": "jane.doe@futureinnovations.com",
                "phone": "+44-20-9876",
                "address": {
                    "street": "789 Future Blvd",
                    "city": "Tech Haven",
                    "state": "TX",
                    "zip": "73301",
                    "coordinates": {
                        "lat": 30.2672,
                        "lng": -97.7431
                    }
                }
            }
        },
        {
            "name": "Smart Home Automation",
            "status": "completed",
            "budget": 200000,
            "milestones": [
                {
                    "milestoneId": "m-101",
                    "description": "Market Research",
                    "dueDate": "2024-05-15",
                    "completed": true
                },
                {
                    "milestoneId": "m-102",

```

```
        "description": "Prototype Deployment",
        "dueDate": "2024-12-01",
        "completed": true
    }
]
}
]
},
{
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
                "lat": 30.2672,
                "lng": -97.7431
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "technologies": [
                    "AWS",
                    "Azure",
                    "Google Cloud"
                ]
            },
            {
                "teamName": "IoT",
                "members": [
                    "Noah",
                    "Ava"
                ]
            }
        ]
    }
}
```

```
        ],
        "technologies": [
            "Raspberry Pi",
            "Arduino",
            "MQTT"
        ]
    }
]
},
"hr": {
    "head": "Sophie Turner",
    "teams": []
}
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
{
    "name": "Global Tech Fund",

```

```

        "investment": 2000000,
        "equity": 15
    },
    {
        "name": "Startup Angels",
        "investment": 750000,
        "equity": 7
    }
]
}
]
}

```

8. Convert JSON to YML

REST API endpoint for converting a JSON to YML.

8.1. CURL Request

```
$ curl 'http://localhost:8080/api/json/json-to-yaml' -i -X POST \
-H 'Content-Type: application/json' \
-d '{
  "companies": [
    {
      "name": "Tech Solutions Inc.",
      "founded": 1998,
      "employees": [
        {
          "id": 1,
          "name": "Alice Smith",
          "title": "CEO",
          "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
              "street": "123 Tech Lane",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90001",
              "coordinates": {
                "lat": 34.0522,
                "lng": -118.2437
              }
            }
          },
          "projects": [
            {

```

```
"projectId": "p-101",
"name": "AI Assistant",
"status": "active",
"budget": 1200000.5,
"milestones": [
  {
    "milestoneId": "m-001",
    "description": "Initial Research",
    "dueDate": "2025-06-30",
    "completed": true
  },
  {
    "milestoneId": "m-002",
    "description": "Prototype Development",
    "dueDate": "2025-09-15",
    "completed": false
  }
]
},
{
  "id": 2,
  "name": "Bob Johnson",
  "title": "CTO",
  "contact": {
    "email": "bob.johnson@techsolutions.com",
    "phone": "+1-555-5678",
    "address": {
      "street": "456 Dev Avenue",
      "city": "Code Town",
      "state": "NY",
      "zip": "10001",
      "coordinates": {
        "lat": 40.7128,
        "lng": -74.006
      }
    }
  },
  "projects": []
}
],
"departments": {
  "engineering": {
    "head": "Bob Johnson",
    "teams": [
      {
        "teamName": "Backend",
        "members": [
          "Charlie",
          "Dana",
          "Eve"
        ]
      }
    ]
  }
}
```

```
        "Eli"
    ],
    "technologies": [
        "Node.js",
        "Python",
        "PostgreSQL"
    ]
},
{
    "teamName": "Frontend",
    "members": [
        "Fiona",
        "George"
    ],
    "technologies": [
        "React",
        "Vue",
        "HTML5",
        "CSS3"
    ]
}
],
},
"hr": {
    "head": "Grace Lee",
    "teams": []
}
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
```

```
        "spots": 0
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "contact": {
                "email": "jane.doe@futureinnovations.com",
                "phone": "+44-20-9876",
                "address": {
                    "street": "789 Future Blvd",
                    "city": "Tech Haven",
                    "state": "TX",
                    "zip": "73301",
                    "coordinates": {
                        "lat": 30.2672,
                        "lng": -97.7431
                    }
                }
            },
            "projects": [
                {
                    "projectId": "p-201",
                    "name": "Smart Home Automation",

```

```
"status": "completed",
"budget": 2000000,
"milestones": [
    {
        "milestoneId": "m-101",
        "description": "Market Research",
        "dueDate": "2024-05-15",
        "completed": true
    },
    {
        "milestoneId": "m-102",
        "description": "Prototype Deployment",
        "dueDate": "2024-12-01",
        "completed": true
    }
]
},
{
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
                "lat": 30.2672,
                "lng": -97.7431
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "lead": "Liam"
            }
        ]
    }
}
```

```
"technologies": [
    "AWS",
    "Azure",
    "Google Cloud"
]
},
{
    "teamName": "IoT",
    "members": [
        "Noah",
        "Ava"
    ],
    "technologies": [
        "Raspberry Pi",
        "Arduino",
        "MQTT"
    ]
}
],
},
"hr": {
    "head": "Sophie Turner",
    "teams": []
}
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
}
```

```

        }
    ],
    "financials": {
        "fiscalYear": 2024,
        "revenue": 8000000,
        "expenses": 4500000,
        "profit": 3500000,
        "currency": "GBP",
        "investors": [
            {
                "name": "Global Tech Fund",
                "investment": 2000000,
                "equity": 15
            },
            {
                "name": "Startup Angels",
                "investment": 750000,
                "equity": 7
            }
        ]
    }
}
'

```

8.2. HTTP Request

```

POST /api/json/json-to-yaml HTTP/1.1
Content-Type: application/json
Content-Length: 8139
Host: localhost:8080

{
    "companies": [
        {
            "name": "Tech Solutions Inc.",
            "founded": 1998,
            "employees": [
                {
                    "id": 1,
                    "name": "Alice Smith",
                    "title": "CEO",
                    "contact": {
                        "email": "alice.smith@techsolutions.com",
                        "phone": "+1-555-1234",
                        "address": {
                            "street": "123 Tech Lane",
                            "city": "Innovate City",

```

```
"state": "CA",
"zip": "90001",
"coordinates": {
    "lat": 34.0522,
    "lng": -118.2437
}
},
],
"projects": [
{
    "projectId": "p-101",
    "name": "AI Assistant",
    "status": "active",
    "budget": 1200000.5,
    "milestones": [
        {
            "milestoneId": "m-001",
            "description": "Initial Research",
            "dueDate": "2025-06-30",
            "completed": true
        },
        {
            "milestoneId": "m-002",
            "description": "Prototype Development",
            "dueDate": "2025-09-15",
            "completed": false
        }
    ]
},
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
]
```

```
],
  "departments": {
    "engineering": {
      "head": "Bob Johnson",
      "teams": [
        {
          "teamName": "Backend",
          "members": [
            "Charlie",
            "Dana",
            "Eli"
          ],
          "technologies": [
            "Node.js",
            "Python",
            "PostgreSQL"
          ]
        },
        {
          "teamName": "Frontend",
          "members": [
            "Fiona",
            "George"
          ],
          "technologies": [
            "React",
            "Vue",
            "HTML5",
            "CSS3"
          ]
        }
      ]
    },
    "hr": {
      "head": "Grace Lee",
      "teams": []
    }
  },
  "offices": [
    {
      "location": "San Francisco",
      "capacity": 50,
      "openSince": "2010-05-15",
      "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
          "available": true,
          "spots": 20
        }
      }
    }
  ]
}
```

```
},
{
  "location": "New York",
  "capacity": 30,
  "openSince": "2015-08-20",
  "facilities": {
    "cafeteria": true,
    "gym": true,
    "parking": {
      "available": false,
      "spots": 0
    }
  }
},
],
"financials": {
  "fiscalYear": 2024,
  "revenue": 5600000,
  "expenses": 3200000,
  "profit": 2400000,
  "currency": "USD",
  "investors": [
    {
      "name": "Capital Ventures",
      "investment": 1000000,
      "equity": 10
    },
    {
      "name": "Tech Angels",
      "investment": 500000,
      "equity": 5
    }
  ]
},
{
  "name": "Future Innovations Ltd.",
  "founded": 2005,
  "employees": [
    {
      "id": 1,
      "name": "Jane Doe",
      "title": "Founder",
      "contact": {
        "email": "jane.doe@futureinnovations.com",
        "phone": "+44-20-9876",
        "address": {
          "street": "789 Future Blvd",
          "city": "Tech Haven",
          "state": "TX",
          "zip": "73301"
        }
      }
    }
  ]
}
```

```
        "coordinates": {
            "lat": 30.2672,
            "lng": -97.7431
        }
    }
},
"projects": [
{
    "projectId": "p-201",
    "name": "Smart Home Automation",
    "status": "completed",
    "budget": 2000000,
    "milestones": [
        {
            "milestoneId": "m-101",
            "description": "Market Research",
            "dueDate": "2024-05-15",
            "completed": true
        },
        {
            "milestoneId": "m-102",
            "description": "Prototype Deployment",
            "dueDate": "2024-12-01",
            "completed": true
        }
    ]
}
],
{
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
                "lat": 30.2672,
                "lng": -97.7431
            }
        }
    },
    "projects": []
}
],
"departments": {
```

```
"engineering": {
    "head": "Mark Twain",
    "teams": [
        {
            "teamName": "Cloud",
            "members": [
                "Liam",
                "Emma",
                "Olivia"
            ],
            "technologies": [
                "AWS",
                "Azure",
                "Google Cloud"
            ]
        },
        {
            "teamName": "IoT",
            "members": [
                "Noah",
                "Ava"
            ],
            "technologies": [
                "Raspberry Pi",
                "Arduino",
                "MQTT"
            ]
        }
    ]
},
"hr": {
    "head": "Sophie Turner",
    "teams": []
},
"offices": [
    {
        "location": "Austin",
        "capacity": 40,
        "openSince": "2018-03-10",
        "facilities": {
            "cafeteria": true,
            "gym": true,
            "parking": {
                "available": true,
                "spots": 25
            }
        }
    },
    {
        "location": "London",

```

```

    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
},
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
]
}

```

8.3. Request Headers

Name	Description
Content-Type	The content type, which must be <code>application/json</code> .

8.4. Request Body

```
{
  "companies": [
    {
      "name": "Tech Solutions Inc."
    }
  ]
}
```

```
"founded": 1998,
"employees": [
{
  "id": 1,
  "name": "Alice Smith",
  "title": "CEO",
  "contact": {
    "email": "alice.smith@techsolutions.com",
    "phone": "+1-555-1234",
    "address": {
      "street": "123 Tech Lane",
      "city": "Innovate City",
      "state": "CA",
      "zip": "90001",
      "coordinates": {
        "lat": 34.0522,
        "lng": -118.2437
      }
    }
  },
  "projects": [
    {
      "projectId": "p-101",
      "name": "AI Assistant",
      "status": "active",
      "budget": 1200000.5,
      "milestones": [
        {
          "milestoneId": "m-001",
          "description": "Initial Research",
          "dueDate": "2025-06-30",
          "completed": true
        },
        {
          "milestoneId": "m-002",
          "description": "Prototype Development",
          "dueDate": "2025-09-15",
          "completed": false
        }
      ]
    }
  ],
  {
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
      "email": "bob.johnson@techsolutions.com",
      "phone": "+1-555-5678",
      "address": {

```

```
        "street": "456 Dev Avenue",
        "city": "Code Town",
        "state": "NY",
        "zip": "10001",
        "coordinates": {
            "lat": 40.7128,
            "lng": -74.006
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            },
            {
                "teamName": "Frontend",
                "members": [
                    "Fiona",
                    "George"
                ],
                "technologies": [
                    "React",
                    "Vue",
                    "HTML5",
                    "CSS3"
                ]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
```

```
{  
    "location": "San Francisco",  
    "capacity": 50,  
    "openSince": "2010-05-15",  
    "facilities": {  
        "cafeteria": true,  
        "gym": false,  
        "parking": {  
            "available": true,  
            "spots": 20  
        }  
    }  
},  
{  
    "location": "New York",  
    "capacity": 30,  
    "openSince": "2015-08-20",  
    "facilities": {  
        "cafeteria": true,  
        "gym": true,  
        "parking": {  
            "available": false,  
            "spots": 0  
        }  
    }  
}  
],  
"financials": {  
    "fiscalYear": 2024,  
    "revenue": 5600000,  
    "expenses": 3200000,  
    "profit": 2400000,  
    "currency": "USD",  
    "investors": [  
        {  
            "name": "Capital Ventures",  
            "investment": 1000000,  
            "equity": 10  
        },  
        {  
            "name": "Tech Angels",  
            "investment": 500000,  
            "equity": 5  
        }  
    ]  
},  
{  
    "name": "Future Innovations Ltd.",  
    "founded": 2005,  
    "employees": [
```

```
{
  "id": 1,
  "name": "Jane Doe",
  "title": "Founder",
  "contact": {
    "email": "jane.doe@futureinnovations.com",
    "phone": "+44-20-9876",
    "address": {
      "street": "789 Future Blvd",
      "city": "Tech Haven",
      "state": "TX",
      "zip": "73301",
      "coordinates": {
        "lat": 30.2672,
        "lng": -97.7431
      }
    }
  },
  "projects": [
    {
      "projectId": "p-201",
      "name": "Smart Home Automation",
      "status": "completed",
      "budget": 2000000,
      "milestones": [
        {
          "milestoneId": "m-101",
          "description": "Market Research",
          "dueDate": "2024-05-15",
          "completed": true
        },
        {
          "milestoneId": "m-102",
          "description": "Prototype Deployment",
          "dueDate": "2024-12-01",
          "completed": true
        }
      ]
    }
  ],
  {
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
      "email": "mark.twain@futureinnovations.com",
      "phone": "+44-20-5432",
      "address": {
        "street": "321 Innovation Road",
        "city": "Tech Haven",
        "state": "TX",
        "zip": "73301"
      }
    }
  }
}
```

```
        "state": "TX",
        "zip": "73301",
        "coordinates": {
            "lat": 30.2672,
            "lng": -97.7431
        }
    }
},
"projects": []
}
],
"departments": {
"engineering": {
"head": "Mark Twain",
"teams": [
{
"teamName": "Cloud",
"members": [
"Liam",
"Emma",
"Olivia"
],
"technologies": [
"AWS",
"Azure",
"Google Cloud"
]
},
{
"teamName": "IoT",
"members": [
"Noah",
"Ava"
],
"technologies": [
"Raspberry Pi",
"Arduino",
"MQTT"
]
}
]
},
"hr": {
"head": "Sophie Turner",
"teams": []
}
},
"offices": [
{
"location": "Austin",
"capacity": 40,
```

```
"openSince": "2018-03-10",
"facilities": {
    "cafeteria": true,
    "gym": true,
    "parking": {
        "available": true,
        "spots": 25
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
},
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
}
```

8.5. HTTP Response

```
HTTP/1.1 200 OK
Content-Type: text/plain; charset=UTF-8
Content-Length: 3123
```

```
companies:
- name: "Tech Solutions Inc."
  founded: 1998
  employees:
    - id: 1
      name: "Alice Smith"
      title: "CEO"
      contact:
        email: "alice.smith@techsolutions.com"
        phone: "+1-555-1234"
      address:
        street: "123 Tech Lane"
        city: "Innovate City"
        state: "CA"
        zip: "90001"
      coordinates:
        lat: 34.0522
        lng: -118.2437
  projects:
    - projectId: "p-101"
      name: "AI Assistant"
      status: "active"
      budget: 1200000.5
      milestones:
        - milestoneId: "m-001"
          description: "Initial Research"
          dueDate: "2025-06-30"
          completed: true
        - milestoneId: "m-002"
          description: "Prototype Development"
          dueDate: "2025-09-15"
          completed: false
    - id: 2
      name: "Bob Johnson"
      title: "CTO"
      contact:
        email: "bob.johnson@techsolutions.com"
        phone: "+1-555-5678"
      address:
        street: "456 Dev Avenue"
        city: "Code Town"
        state: "NY"
        zip: "10001"
      coordinates:
```

```
    lat: 40.7128
    lng: -74.006
  projects: []
departments:
  engineering:
    head: "Bob Johnson"
  teams:
    - teamName: "Backend"
      members:
        - "Charlie"
        - "Dana"
        - "Eli"
      technologies:
        - "Node.js"
        - "Python"
        - "PostgreSQL"
    - teamName: "Frontend"
      members:
        - "Fiona"
        - "George"
      technologies:
        - "React"
        - "Vue"
        - "HTML5"
        - "CSS3"
  hr:
    head: "Grace Lee"
    teams: []
offices:
  - location: "San Francisco"
    capacity: 50
    openSince: "2010-05-15"
    facilities:
      cafeteria: true
      gym: false
      parking:
        available: true
        spots: 20
  - location: "New York"
    capacity: 30
    openSince: "2015-08-20"
    facilities:
      cafeteria: true
      gym: true
      parking:
        available: false
        spots: 0
financials:
  fiscalYear: 2024
  revenue: 5600000
  expenses: 3200000
```

```

profit: 2400000
currency: "USD"
investors:
  - name: "Capital Ventures"
    investment: 1000000
    equity: 10
  - name: "Tech Angels"
    investment: 500000
    equity: 5

- name: "Future Innovations Ltd."
  founded: 2005
  employees:
    - id: 1
      name: "Jane Doe"
      title: "Founder"
      contact:
        email: "jane.doe@futureinnovations.com"
        phone: "+44-20-9876"
      address:
        street: "789 Future Blvd"
        city: "Tech Haven"
        state: "TX"
        zip: "73301"
      coordinates:
        lat: 30.2672
        lng: -

```

8.6. Response Body

```

companies:
  - name: "Tech Solutions Inc."
    founded: 1998
    employees:
      - id: 1
        name: "Alice Smith"
        title: "CEO"
        contact:
          email: "alice.smith@techsolutions.com"
          phone: "+1-555-1234"
        address:
          street: "123 Tech Lane"
          city: "Innovate City"
          state: "CA"
          zip: "90001"
        coordinates:
          lat: 34.0522
          lng: -118.2437
    projects:

```

```
- projectId: "p-101"
  name: "AI Assistant"
  status: "active"
  budget: 1200000.5
  milestones:
    - milestoneId: "m-001"
      description: "Initial Research"
      dueDate: "2025-06-30"
      completed: true
    - milestoneId: "m-002"
      description: "Prototype Development"
      dueDate: "2025-09-15"
      completed: false
- id: 2
  name: "Bob Johnson"
  title: "CTO"
  contact:
    email: "bob.johnson@techsolutions.com"
    phone: "+1-555-5678"
    address:
      street: "456 Dev Avenue"
      city: "Code Town"
      state: "NY"
      zip: "10001"
    coordinates:
      lat: 40.7128
      lng: -74.006
  projects: []
departments:
engineering:
  head: "Bob Johnson"
  teams:
    - teamName: "Backend"
      members:
        - "Charlie"
        - "Dana"
        - "Eli"
      technologies:
        - "Node.js"
        - "Python"
        - "PostgreSQL"
    - teamName: "Frontend"
      members:
        - "Fiona"
        - "George"
      technologies:
        - "React"
        - "Vue"
        - "HTML5"
        - "CSS3"
hr:
```

```
head: "Grace Lee"
teams: []
offices:
  - location: "San Francisco"
    capacity: 50
    openSince: "2010-05-15"
    facilities:
      cafeteria: true
      gym: false
      parking:
        available: true
        spots: 20
  - location: "New York"
    capacity: 30
    openSince: "2015-08-20"
    facilities:
      cafeteria: true
      gym: true
      parking:
        available: false
        spots: 0
financials:
  fiscalYear: 2024
  revenue: 5600000
  expenses: 3200000
  profit: 2400000
  currency: "USD"
investors:
  - name: "Capital Ventures"
    investment: 1000000
    equity: 10
  - name: "Tech Angels"
    investment: 500000
    equity: 5
- name: "Future Innovations Ltd."
  founded: 2005
  employees:
    - id: 1
      name: "Jane Doe"
      title: "Founder"
      contact:
        email: "jane.doe@futureinnovations.com"
        phone: "+44-20-9876"
      address:
        street: "789 Future Blvd"
        city: "Tech Haven"
        state: "TX"
        zip: "73301"
      coordinates:
        lat: 30.2672
```

```
    lng: -
```

9. Convert YML to JSON

REST API endpoint for converting YML to JSON.

9.1. CURL Request

```
$ curl 'http://localhost:8080/api/json/yaml-to-json' -i -X POST \
-H 'Content-Type: application/x-yaml' \
-d 'companies:
- name: "Tech Solutions Inc."
  founded: 1998
  employees:
    - id: 1
      name: "Alice Smith"
      title: "CEO"
      contact:
        email: "alice.smith@techsolutions.com"
        phone: "+1-555-1234"
        address:
          street: "123 Tech Lane"
          city: "Innovate City"
          state: "CA"
          zip: "90001"
      coordinates:
        lat: 34.0522
        lng: -118.2437
    projects:
      - projectId: "p-101"
        name: "AI Assistant"
        status: "active"
        budget: 1200000.5
        milestones:
          - milestoneId: "m-001"
            description: "Initial Research"
            dueDate: "2025-06-30"
            completed: true
          - milestoneId: "m-002"
            description: "Prototype Development"
            dueDate: "2025-09-15"
            completed: false
      - id: 2
        name: "Bob Johnson"
        title: "CTO"
        contact:
          email: "bob.johnson@techsolutions.com"
          phone: "+1-555-5678"
```

```
address:
  street: "456 Dev Avenue"
  city: "Code Town"
  state: "NY"
  zip: "10001"
  coordinates:
    lat: 40.7128
    lng: -74.006
  projects: []
departments:
  engineering:
    head: "Bob Johnson"
    teams:
      - teamName: "Backend"
        members:
          - "Charlie"
          - "Dana"
          - "Eli"
        technologies:
          - "Node.js"
          - "Python"
          - "PostgreSQL"
      - teamName: "Frontend"
        members:
          - "Fiona"
          - "George"
        technologies:
          - "React"
          - "Vue"
          - "HTML5"
          - "CSS3"
  hr:
    head: "Grace Lee"
    teams: []
offices:
  - location: "San Francisco"
    capacity: 50
    openSince: "2010-05-15"
    facilities:
      cafeteria: true
      gym: false
      parking:
        available: true
        spots: 20
  - location: "New York"
    capacity: 30
    openSince: "2015-08-20"
    facilities:
      cafeteria: true
      gym: true
      parking:
```

```
available: false
spots: 0
financials:
  fiscalYear: 2024
  revenue: 5600000
  expenses: 3200000
  profit: 2400000
  currency: "USD"
investors:
  - name: "Capital Ventures"
    investment: 1000000
    equity: 10
  - name: "Tech Angels"
    investment: 500000
    equity: 5
- name: "Future Innovations Ltd."
  founded: 2005
employees:
  - id: 1
    name: "Jane Doe"
    title: "Founder"
    contact:
      email: "jane.doe@futureinnovations.com"
      phone: "+44-20-9876"
    address:
      street: "789 Future Blvd"
      city: "Tech Haven"
      state: "TX"
      zip: "73301"
    coordinates:
      lat: 30.2672
      lng: -97.7431
projects:
  - projectId: "p-201"
    name: "Smart Home Automation"
    status: "completed"
    budget: 2000000
    milestones:
      - milestoneId: "m-101"
        description: "Market Research"
        dueDate: "2024-05-15"
        completed: true
      - milestoneId: "m-102"
        description: "Prototype Deployment"
        dueDate: "2024-12-01"
        completed: true
    - id: 2
      name: "Mark Twain"
      title: "COO"
      contact:
```

```
email: "mark.twain@futureinnovations.com"
phone: "+44-20-5432"
address:
  street: "321 Innovation Road"
  city: "Tech Haven"
  state: "TX"
  zip: "73301"
coordinates:
  lat: 30.2672
  lng: -97.7431
projects: []
departments:
  engineering:
    head: "Mark Twain"
    teams:
      - teamName: "Cloud"
        members:
          - "Liam"
          - "Emma"
          - "Olivia"
        technologies:
          - "AWS"
          - "Azure"
          - "Google Cloud"
      - teamName: "IoT"
        members:
          - "Noah"
          - "Ava"
        technologies:
          - "Raspberry Pi"
          - "Arduino"
          - "MQTT"
  hr:
    head: "Sophie Turner"
    teams: []
offices:
  - location: "Austin"
    capacity: 40
    openSince: "2018-03-10"
    facilities:
      cafeteria: true
      gym: true
      parking:
        available: true
        spots: 25
  - location: "London"
    capacity: 20
    openSince: "2021-11-05"
    facilities:
      cafeteria: true
      gym: false
```

```

parking:
  available: true
  spots: 10
financials:
  fiscalYear: 2024
  revenue: 800000
  expenses: 450000
  profit: 350000
  currency: "GBP"
investors:
  - name: "Global Tech Fund"
    investment: 2000000
    equity: 15
  - name: "Startup Angels"
    investment: 750000
    equity: 7
'

```

9.2. HTTP Request

```

POST /api/json/yaml-to-json HTTP/1.1
Content-Type: application/x-yaml
Content-Length: 5342
Host: localhost:8080

companies:
  - name: "Tech Solutions Inc."
    founded: 1998
    employees:
      - id: 1
        name: "Alice Smith"
        title: "CEO"
        contact:
          email: "alice.smith@techsolutions.com"
          phone: "+1-555-1234"
        address:
          street: "123 Tech Lane"
          city: "Innovate City"
          state: "CA"
          zip: "90001"
        coordinates:
          lat: 34.0522
          lng: -118.2437
    projects:
      - projectId: "p-101"
        name: "AI Assistant"
        status: "active"
        budget: 1200000.5
        milestones:

```

```
- milestoneId: "m-001"
  description: "Initial Research"
  dueDate: "2025-06-30"
  completed: true
- milestoneId: "m-002"
  description: "Prototype Development"
  dueDate: "2025-09-15"
  completed: false
- id: 2
  name: "Bob Johnson"
  title: "CTO"
  contact:
    email: "bob.johnson@techsolutions.com"
    phone: "+1-555-5678"
    address:
      street: "456 Dev Avenue"
      city: "Code Town"
      state: "NY"
      zip: "10001"
    coordinates:
      lat: 40.7128
      lng: -74.006
  projects: []
departments:
engineering:
  head: "Bob Johnson"
  teams:
    - teamName: "Backend"
      members:
        - "Charlie"
        - "Dana"
        - "Eli"
      technologies:
        - "Node.js"
        - "Python"
        - "PostgreSQL"
    - teamName: "Frontend"
      members:
        - "Fiona"
        - "George"
      technologies:
        - "React"
        - "Vue"
        - "HTML5"
        - "CSS3"
hr:
  head: "Grace Lee"
  teams: []
offices:
  - location: "San Francisco"
    capacity: 50
```

```
openSince: "2010-05-15"
facilities:
  cafeteria: true
  gym: false
  parking:
    available: true
    spots: 20
- location: "New York"
  capacity: 30
  openSince: "2015-08-20"
  facilities:
    cafeteria: true
    gym: true
    parking:
      available: false
      spots: 0
financials:
  fiscalYear: 2024
  revenue: 5600000
  expenses: 3200000
  profit: 2400000
  currency: "USD"
investors:
- name: "Capital Ventures"
  investment: 1000000
  equity: 10
- name: "Tech Angels"
  investment: 500000
  equity: 5

- name: "Future Innovations Ltd."
  founded: 2005
employees:
- id: 1
  name: "Jane Doe"
  title: "Founder"
contact:
  email: "jane.doe@futureinnovations.com"
  phone: "+44-20-9876"
address:
  street: "789 Future Blvd"
  city: "Tech Haven"
  state: "TX"
  zip: "73301"
coordinates:
  lat: 30.2672
  lng: -97.7431
projects:
- projectId: "p-201"
  name: "Smart Home Automation"
  status: "completed"
```

```
budget: 2000000
milestones:
  - milestoneId: "m-101"
    description: "Market Research"
    dueDate: "2024-05-15"
    completed: true
  - milestoneId: "m-102"
    description: "Prototype Deployment"
    dueDate: "2024-12-01"
    completed: true
- id: 2
  name: "Mark Twain"
  title: "COO"
  contact:
    email: "mark.twain@futureinnovations.com"
    phone: "+44-20-5432"
  address:
    street: "321 Innovation Road"
    city: "Tech Haven"
    state: "TX"
    zip: "73301"
  coordinates:
    lat: 30.2672
    lng: -97.7431
  projects: []
departments:
engineering:
  head: "Mark Twain"
  teams:
    - teamName: "Cloud"
      members:
        - "Liam"
        - "Emma"
        - "Olivia"
      technologies:
        - "AWS"
        - "Azure"
        - "Google Cloud"
    - teamName: "IoT"
      members:
        - "Noah"
        - "Ava"
      technologies:
        - "Raspberry Pi"
        - "Arduino"
        - "MQTT"
hr:
  head: "Sophie Turner"
  teams: []
offices:
  - location: "Austin"
```

```

capacity: 40
openSince: "2018-03-10"
facilities:
  cafeteria: true
  gym: true
  parking:
    available: true
    spots: 25
- location: "London"
  capacity: 20
  openSince: "2021-11-05"
  facilities:
    cafeteria: true
    gym: false
    parking:
      available: true
      spots: 10
  financials:
    fiscalYear: 2024
    revenue: 8000000
    expenses: 4500000
    profit: 3500000
    currency: "GBP"
  investors:
    - name: "Global Tech Fund"
      investment: 2000000
      equity: 15
    - name: "Startup Angels"
      investment: 750000
      equity: 7

```

9.3. Request Headers

Name	Description
Content-Type	The content type, which must be application/x-yaml .

9.4. Request Body

```

companies:
- name: "Tech Solutions Inc."
  founded: 1998
  employees:
    - id: 1
      name: "Alice Smith"
      title: "CEO"
      contact:

```

```
email: "alice.smith@techsolutions.com"
phone: "+1-555-1234"
address:
  street: "123 Tech Lane"
  city: "Innovate City"
  state: "CA"
  zip: "90001"
coordinates:
  lat: 34.0522
  lng: -118.2437
projects:
  - projectId: "p-101"
    name: "AI Assistant"
    status: "active"
    budget: 1200000.5
    milestones:
      - milestoneId: "m-001"
        description: "Initial Research"
        dueDate: "2025-06-30"
        completed: true
      - milestoneId: "m-002"
        description: "Prototype Development"
        dueDate: "2025-09-15"
        completed: false
  - id: 2
    name: "Bob Johnson"
    title: "CTO"
    contact:
      email: "bob.johnson@techsolutions.com"
      phone: "+1-555-5678"
    address:
      street: "456 Dev Avenue"
      city: "Code Town"
      state: "NY"
      zip: "10001"
    coordinates:
      lat: 40.7128
      lng: -74.006
    projects: []
departments:
engineering:
  head: "Bob Johnson"
  teams:
    - teamName: "Backend"
      members:
        - "Charlie"
        - "Dana"
        - "Eli"
  technologies:
    - "Node.js"
    - "Python"
```

```
- "PostgreSQL"
- teamName: "Frontend"
members:
- "Fiona"
- "George"
technologies:
- "React"
- "Vue"
- "HTML5"
- "CSS3"
hr:
head: "Grace Lee"
teams: []
offices:
- location: "San Francisco"
capacity: 50
openSince: "2010-05-15"
facilities:
cafeteria: true
gym: false
parking:
available: true
spots: 20
- location: "New York"
capacity: 30
openSince: "2015-08-20"
facilities:
cafeteria: true
gym: true
parking:
available: false
spots: 0
financials:
fiscalYear: 2024
revenue: 5600000
expenses: 3200000
profit: 2400000
currency: "USD"
investors:
- name: "Capital Ventures"
investment: 1000000
equity: 10
- name: "Tech Angels"
investment: 500000
equity: 5
- name: "Future Innovations Ltd."
founded: 2005
employees:
- id: 1
name: "Jane Doe"
```

```
title: "Founder"
contact:
  email: "jane.doe@futureinnovations.com"
  phone: "+44-20-9876"
address:
  street: "789 Future Blvd"
  city: "Tech Haven"
  state: "TX"
  zip: "73301"
coordinates:
  lat: 30.2672
  lng: -97.7431
projects:
  - projectId: "p-201"
    name: "Smart Home Automation"
    status: "completed"
    budget: 2000000
    milestones:
      - milestoneId: "m-101"
        description: "Market Research"
        dueDate: "2024-05-15"
        completed: true
      - milestoneId: "m-102"
        description: "Prototype Deployment"
        dueDate: "2024-12-01"
        completed: true
  - id: 2
    name: "Mark Twain"
    title: "COO"
    contact:
      email: "mark.twain@futureinnovations.com"
      phone: "+44-20-5432"
    address:
      street: "321 Innovation Road"
      city: "Tech Haven"
      state: "TX"
      zip: "73301"
    coordinates:
      lat: 30.2672
      lng: -97.7431
    projects: []
departments:
  engineering:
    head: "Mark Twain"
    teams:
      - teamName: "Cloud"
        members:
          - "Liam"
          - "Emma"
          - "Olivia"
technologies:
```

```
- "AWS"
- "Azure"
- "Google Cloud"
- teamName: "IoT"
members:
- "Noah"
- "Ava"
technologies:
- "Raspberry Pi"
- "Arduino"
- "MQTT"

hr:
head: "Sophie Turner"
teams: []
offices:
- location: "Austin"
capacity: 40
openSince: "2018-03-10"
facilities:
cafeteria: true
gym: true
parking:
available: true
spots: 25
- location: "London"
capacity: 20
openSince: "2021-11-05"
facilities:
cafeteria: true
gym: false
parking:
available: true
spots: 10
financials:
fiscalYear: 2024
revenue: 8000000
expenses: 4500000
profit: 3500000
currency: "GBP"
investors:
- name: "Global Tech Fund"
investment: 2000000
equity: 15
- name: "Startup Angels"
investment: 750000
equity: 7
```

9.5. HTTP Response

```
HTTP/1.1 200 OK
Content-Type: text/plain; charset=UTF-8
Content-Length: 8139

{
  "companies": [
    {
      "name": "Tech Solutions Inc.",
      "founded": 1998,
      "employees": [
        {
          "id": 1,
          "name": "Alice Smith",
          "title": "CEO",
          "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
              "street": "123 Tech Lane",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90001",
              "coordinates": {
                "lat": 34.0522,
                "lng": -118.2437
              }
            }
          }
        },
        {
          "name": "Bob Johnson",
          "title": "CFO",
          "contact": {
            "email": "bob.johnson@techsolutions.com",
            "phone": "+1-555-1235",
            "address": {
              "street": "456 Innovation St",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90002",
              "coordinates": {
                "lat": 34.0523,
                "lng": -118.2438
              }
            }
          }
        }
      ],
      "projects": [
        {
          "projectId": "p-101",
          "name": "AI Assistant",
          "status": "active",
          "budget": 1200000.5,
          "milestones": [
            {
              "milestoneId": "m-001",
              "description": "Initial Research",
              "dueDate": "2025-06-30",
              "completed": true
            },
            {
              "milestoneId": "m-002",
              "description": "Prototype Development",
              "dueDate": "2025-09-15",
              "completed": false
            }
          ]
        }
      ]
    }
  ]
}
```

```
        }
    ],
},
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            }
        ],
        {
            "teamName": "Frontend",
            "members": [
                "Fiona",
                "George"
            ],
            "technologies": [
                "React",
                "Vue",
                "HTML5",
            ]
        }
    }
}
```

```
        "CSS3"
    ]
}
]
},
"hr": {
    "head": "Grace Lee",
    "teams": []
}
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {

```

```
        "name": "Tech Angels",
        "investment": 500000,
        "equity": 5
    }
]
}
},
{
  "name": "Future Innovations Ltd.",
  "founded": 2005,
  "employees": [
    {
      "id": 1,
      "name": "Jane Doe",
      "title": "Founder",
      "contact": {
        "email": "jane.doe@futureinnovations.com",
        "phone": "+44-20-9876",
        "address": {
          "street": "789 Future Blvd",
          "city": "Tech Haven",
          "state": "TX",
          "zip": "73301",
          "coordinates": {
            "lat": 30.2672,
            "lng": -97.7431
          }
        }
      },
      "projects": [
        {
          "projectId": "p-201",
          "name": "Smart Home Automation",
          "status": "completed",
          "budget": 2000000,
          "milestones": [
            {
              "milestoneId": "m-101",
              "description": "Market Research",
              "dueDate": "2024-05-15",
              "completed": true
            },
            {
              "milestoneId": "m-102",
              "description": "Prototype Deployment",
              "dueDate": "2024-12-01",
              "completed": true
            }
          ]
        }
      ]
    }
  ]
}
```

```
},
{
  "id": 2,
  "name": "Mark Twain",
  "title": "COO",
  "contact": {
    "email": "mark.twain@futureinnovations.com",
    "phone": "+44-20-5432",
    "address": {
      "street": "321 Innovation Road",
      "city": "Tech Haven",
      "state": "TX",
      "zip": "73301",
      "coordinates": {
        "lat": 30.2672,
        "lng": -97.7431
      }
    }
  },
  "projects": []
}
],
"departments": {
  "engineering": {
    "head": "Mark Twain",
    "teams": [
      {
        "teamName": "Cloud",
        "members": [
          "Liam",
          "Emma",
          "Olivia"
        ],
        "technologies": [
          "AWS",
          "Azure",
          "Google Cloud"
        ]
      },
      {
        "teamName": "IoT",
        "members": [
          "Noah",
          "Ava"
        ],
        "technologies": [
          "Raspberry Pi",
          "Arduino",
          "MQTT"
        ]
      }
    ]
  }
}
```

```
        ],
    },
    "hr": {
        "head": "Sophie Turner",
        "teams": []
    }
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
```

```
        }
    ]
}
]
}
```

9.6. Response Body

```
{
  "companies": [
    {
      "name": "Tech Solutions Inc.",
      "founded": 1998,
      "employees": [
        {
          "id": 1,
          "name": "Alice Smith",
          "title": "CEO",
          "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
              "street": "123 Tech Lane",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90001",
              "coordinates": {
                "lat": 34.0522,
                "lng": -118.2437
              }
            }
          },
        },
        "projects": [
          {
            "projectId": "p-101",
            "name": "AI Assistant",
            "status": "active",
            "budget": 1200000.5,
            "milestones": [
              {
                "milestoneId": "m-001",
                "description": "Initial Research",
                "dueDate": "2025-06-30",
                "completed": true
              },
              {
                "milestoneId": "m-002",
                "description": "Prototype Development",
                "dueDate": "2025-09-15"
              }
            ]
          }
        ]
      }
    }
  ]
}
```

```
        "dueDate": "2025-09-15",
        "completed": false
    }
]
}
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            },
            {
                "teamName": "Frontend",
                "members": [
                    "Fiona",
                    "George"
                ],
                "technologies": [
                    "React.js",
                    "Angular",
                    "MongoDB"
                ]
            }
        ]
    }
}
```

```
    "technologies": [
        "React",
        "Vue",
        "HTML5",
        "CSS3"
    ],
},
],
},
"hr": {
    "head": "Grace Lee",
    "teams": []
},
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
},
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",

```

```
        "investment": 1000000,
        "equity": 10
    },
    {
        "name": "Tech Angels",
        "investment": 500000,
        "equity": 5
    }
]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "contact": {
                "email": "jane.doe@futureinnovations.com",
                "phone": "+44-20-9876",
                "address": {
                    "street": "789 Future Blvd",
                    "city": "Tech Haven",
                    "state": "TX",
                    "zip": "73301",
                    "coordinates": {
                        "lat": 30.2672,
                        "lng": -97.7431
                    }
                }
            }
        ],
        "projects": [
            {
                "projectId": "p-201",
                "name": "Smart Home Automation",
                "status": "completed",
                "budget": 2000000,
                "milestones": [
                    {
                        "milestoneId": "m-101",
                        "description": "Market Research",
                        "dueDate": "2024-05-15",
                        "completed": true
                    },
                    {
                        "milestoneId": "m-102",
                        "description": "Prototype Deployment",
                        "dueDate": "2024-12-01",
                        "completed": true
                    }
                ]
            }
        ]
    }
}
```

```

        }
    ]
}
],
{
  "id": 2,
  "name": "Mark Twain",
  "title": "COO",
  "contact": {
    "email": "mark.twain@futureinnovations.com",
    "phone": "+44-20-5432",
    "address": {
      "street": "321 Innovation Road",
      "city": "Tech Haven",
      "state": "TX",
      "zip": "73301",
      "coordinates": {
        "lat": 30.2672,
        "lng": -97.7431
      }
    }
  },
  "projects": []
}
],
"departments": {
  "engineering": {
    "head": "Mark Twain",
    "teams": [
      {
        "teamName": "Cloud",
        "members": [
          "Liam",
          "Emma",
          "Olivia"
        ],
        "technologies": [
          "AWS",
          "Azure",
          "Google Cloud"
        ]
      },
      {
        "teamName": "IoT",
        "members": [
          "Noah",
          "Ava"
        ],
        "technologies": [
          "Raspberry Pi",

```

```
        "Arduino",
        "MQTT"
    ]
}
]
},
"hr": {
    "head": "Sophie Turner",
    "teams": []
}
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Innovate Capital",
            "investment": 1500000,
            "equity": 10
        }
    ]
}
```

```
{  
    "name": "Startup Angels",  
    "investment": 750000,  
    "equity": 7  
}  
]  
}  
]  
}
```

10. Search in JSON

REST API endpoint for searching in JSON.

10.1. CURL Request

```
$ curl 'http://localhost:8080/api/json/find?searchTerm=Bob%20Johnson' -i -X POST \  
-H 'Content-Type: application/json' \  
-d '{  
    "companies": [  
        {  
            "name": "Tech Solutions Inc.",  
            "founded": 1998,  
            "employees": [  
                {  
                    "id": 1,  
                    "name": "Alice Smith",  
                    "title": "CEO",  
                    "contact": {  
                        "email": "alice.smith@techsolutions.com",  
                        "phone": "+1-555-1234",  
                        "address": {  
                            "street": "123 Tech Lane",  
                            "city": "Innovate City",  
                            "state": "CA",  
                            "zip": "90001",  
                            "coordinates": {  
                                "lat": 34.0522,  
                                "lng": -118.2437  
                            }  
                        }  
                    },  
                    "projects": [  
                        {  
                            "projectId": "p-101",  
                            "name": "AI Assistant",  
                            "status": "active",  
                            "start": "2023-01-01",  
                            "end": "2023-12-31",  
                            "description": "Develop AI-powered customer support system",  
                            "lead": "Alice Smith",  
                            "team": "Tech Solutions Inc.",  
                            "stage": "Planning",  
                            "priority": "High",  
                            "resources": 500000  
                        }  
                    ]  
                }  
            ]  
        }  
    ]  
}
```

```
"budget": 1200000.5,
"milestones": [
    {
        "milestoneId": "m-001",
        "description": "Initial Research",
        "dueDate": "2025-06-30",
        "completed": true
    },
    {
        "milestoneId": "m-002",
        "description": "Prototype Development",
        "dueDate": "2025-09-15",
        "completed": false
    }
]
},
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [

```

```
        "Node.js",
        "Python",
        "PostgreSQL"
    ],
},
{
    "teamName": "Frontend",
    "members": [
        "Fiona",
        "George"
    ],
    "technologies": [
        "React",
        "Vue",
        "HTML5",
        "CSS3"
    ]
}
],
},
"hr": {
    "head": "Grace Lee",
    "teams": []
}
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
}
```

```
        }
    ],
    "financials": {
        "fiscalYear": 2024,
        "revenue": 5600000,
        "expenses": 3200000,
        "profit": 2400000,
        "currency": "USD",
        "investors": [
            {
                "name": "Capital Ventures",
                "investment": 1000000,
                "equity": 10
            },
            {
                "name": "Tech Angels",
                "investment": 500000,
                "equity": 5
            }
        ]
    },
    {
        "name": "Future Innovations Ltd.",
        "founded": 2005,
        "employees": [
            {
                "id": 1,
                "name": "Jane Doe",
                "title": "Founder",
                "contact": {
                    "email": "jane.doe@futureinnovations.com",
                    "phone": "+44-20-9876",
                    "address": {
                        "street": "789 Future Blvd",
                        "city": "Tech Haven",
                        "state": "TX",
                        "zip": "73301",
                        "coordinates": {
                            "lat": 30.2672,
                            "lng": -97.7431
                        }
                    }
                }
            },
            {
                "projectId": "p-201",
                "name": "Smart Home Automation",
                "status": "completed",
                "budget": 2000000,
                "milestones": [

```

```

    {
      "milestoneId": "m-101",
      "description": "Market Research",
      "dueDate": "2024-05-15",
      "completed": true
    },
    {
      "milestoneId": "m-102",
      "description": "Prototype Deployment",
      "dueDate": "2024-12-01",
      "completed": true
    }
  ]
}
],
{
  "id": 2,
  "name": "Mark Twain",
  "title": "COO",
  "contact": {
    "email": "mark.twain@futureinnovations.com",
    "phone": "+44-20-5432",
    "address": {
      "street": "321 Innovation Road",
      "city": "Tech Haven",
      "state": "TX",
      "zip": "73301",
      "coordinates": {
        "lat": 30.2672,
        "lng": -97.7431
      }
    }
  },
  "projects": []
}
],
"departments": {
  "engineering": {
    "head": "Mark Twain",
    "teams": [
      {
        "teamName": "Cloud",
        "members": [
          "Liam",
          "Emma",
          "Olivia"
        ],
        "technologies": [
          "AWS",
          "Azure",
        ]
      }
    ]
  }
}

```

```
        "Google Cloud"
    ]
},
{
    "teamName": "IoT",
    "members": [
        "Noah",
        "Ava"
    ],
    "technologies": [
        "Raspberry Pi",
        "Arduino",
        "MQTT"
    ]
}
],
},
"hr": {
    "head": "Sophie Turner",
    "teams": []
}
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
},
],
"financials": {
```

```

    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
]
'

```

10.2. HTTP Request

POST /api/json/find?searchTerm=Bob%20Johnson HTTP/1.1

Content-Type: application/json

Content-Length: 8139

Host: localhost:8080

```
{
    "companies": [
        {
            "name": "Tech Solutions Inc.",
            "founded": 1998,
            "employees": [
                {
                    "id": 1,
                    "name": "Alice Smith",
                    "title": "CEO",
                    "contact": {
                        "email": "alice.smith@techsolutions.com",
                        "phone": "+1-555-1234",
                        "address": {
                            "street": "123 Tech Lane",
                            "city": "Innovate City",
                            "state": "CA",
                            "zip": "90001",
                            "coordinates": {

```

```
        "lat": 34.0522,
        "lng": -118.2437
    }
}
},
"projects": [
{
    "projectId": "p-101",
    "name": "AI Assistant",
    "status": "active",
    "budget": 1200000.5,
    "milestones": [
        {
            "milestoneId": "m-001",
            "description": "Initial Research",
            "dueDate": "2025-06-30",
            "completed": true
        },
        {
            "milestoneId": "m-002",
            "description": "Prototype Development",
            "dueDate": "2025-09-15",
            "completed": false
        }
    ]
},
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
```

```
"head": "Bob Johnson",
"teams": [
  {
    "teamName": "Backend",
    "members": [
      "Charlie",
      "Dana",
      "Eli"
    ],
    "technologies": [
      "Node.js",
      "Python",
      "PostgreSQL"
    ]
  },
  {
    "teamName": "Frontend",
    "members": [
      "Fiona",
      "George"
    ],
    "technologies": [
      "React",
      "Vue",
      "HTML5",
      "CSS3"
    ]
  }
],
"hr": {
  "head": "Grace Lee",
  "teams": []
},
"offices": [
  {
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
      "cafeteria": true,
      "gym": false,
      "parking": {
        "available": true,
        "spots": 20
      }
    }
  },
  {
    "location": "New York",
    "capacity": 30,
    "openSince": "2011-01-01",
    "facilities": {
      "cafeteria": true,
      "gym": true,
      "parking": {
        "available": true,
        "spots": 15
      }
    }
  }
]
```

```
"capacity": 30,
"openSince": "2015-08-20",
"facilities": {
    "cafeteria": true,
    "gym": true,
    "parking": {
        "available": false,
        "spots": 0
    }
},
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "contact": {
                "email": "jane.doe@futureinnovations.com",
                "phone": "+44-20-9876",
                "address": {
                    "street": "789 Future Blvd",
                    "city": "Tech Haven",
                    "state": "TX",
                    "zip": "73301",
                    "coordinates": {
                        "lat": 30.2672,
                        "lng": -97.7431
                    }
                }
            }
        }
    ]
}
```

```

        }
    },
},
"projects": [
{
    "projectId": "p-201",
    "name": "Smart Home Automation",
    "status": "completed",
    "budget": 2000000,
    "milestones": [
        {
            "milestoneId": "m-101",
            "description": "Market Research",
            "dueDate": "2024-05-15",
            "completed": true
        },
        {
            "milestoneId": "m-102",
            "description": "Prototype Deployment",
            "dueDate": "2024-12-01",
            "completed": true
        }
    ]
},
{
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
                "lat": 30.2672,
                "lng": -97.7431
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [

```

```
{
    "teamName": "Cloud",
    "members": [
        "Liam",
        "Emma",
        "Olivia"
    ],
    "technologies": [
        "AWS",
        "Azure",
        "Google Cloud"
    ]
},
{
    "teamName": "IoT",
    "members": [
        "Noah",
        "Ava"
    ],
    "technologies": [
        "Raspberry Pi",
        "Arduino",
        "MQTT"
    ]
}
],
"hr": {
    "head": "Sophie Turner",
    "teams": []
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {

```

```

        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
}

```

10.3. Request Headers

Name	Description
Content-Type	The content type, which must be <code>application/json</code> .

10.4. Request Body

```
{
    "companies": [
        {
            "name": "Tech Solutions Inc.",
            "founded": 1998,
            "employees": [
                {

```

```
"id": 1,
"name": "Alice Smith",
"title": "CEO",
"contact": {
    "email": "alice.smith@techsolutions.com",
    "phone": "+1-555-1234",
    "address": {
        "street": "123 Tech Lane",
        "city": "Innovate City",
        "state": "CA",
        "zip": "90001",
        "coordinates": {
            "lat": 34.0522,
            "lng": -118.2437
        }
    }
},
"projects": [
    {
        "projectId": "p-101",
        "name": "AI Assistant",
        "status": "active",
        "budget": 1200000.5,
        "milestones": [
            {
                "milestoneId": "m-001",
                "description": "Initial Research",
                "dueDate": "2025-06-30",
                "completed": true
            },
            {
                "milestoneId": "m-002",
                "description": "Prototype Development",
                "dueDate": "2025-09-15",
                "completed": false
            }
        ]
    }
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001"
        }
    }
}
```

```
        "zip": "10001",
        "coordinates": {
            "lat": 40.7128,
            "lng": -74.006
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            },
            {
                "teamName": "Frontend",
                "members": [
                    "Fiona",
                    "George"
                ],
                "technologies": [
                    "React",
                    "Vue",
                    "HTML5",
                    "CSS3"
                ]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
```

```
"openSince": "2010-05-15",
"facilities": {
    "cafeteria": true,
    "gym": false,
    "parking": {
        "available": true,
        "spots": 20
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
},
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "role": "CEO"
        }
    ]
}
```

```
"title": "Founder",
"contact": {
    "email": "jane.doe@futureinnovations.com",
    "phone": "+44-20-9876",
    "address": {
        "street": "789 Future Blvd",
        "city": "Tech Haven",
        "state": "TX",
        "zip": "73301",
        "coordinates": {
            "lat": 30.2672,
            "lng": -97.7431
        }
    }
},
"projects": [
{
    "projectId": "p-201",
    "name": "Smart Home Automation",
    "status": "completed",
    "budget": 2000000,
    "milestones": [
        {
            "milestoneId": "m-101",
            "description": "Market Research",
            "dueDate": "2024-05-15",
            "completed": true
        },
        {
            "milestoneId": "m-102",
            "description": "Prototype Deployment",
            "dueDate": "2024-12-01",
            "completed": true
        }
    ]
}
],
{
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {

```

```
        "lat": 30.2672,
        "lng": -97.7431
    }
}
},
"projects": []
},
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "technologies": [
                    "AWS",
                    "Azure",
                    "Google Cloud"
                ]
            },
            {
                "teamName": "IoT",
                "members": [
                    "Noah",
                    "Ava"
                ],
                "technologies": [
                    "Raspberry Pi",
                    "Arduino",
                    "MQTT"
                ]
            }
        ]
    },
    "hr": {
        "head": "Sophie Turner",
        "teams": []
    }
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
```

```

    "gym": true,
    "parking": {
        "available": true,
        "spots": 25
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
},
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
}

```

10.5. HTTP Response

HTTP/1.1 200 OK
 Content-Type: application/json
 Content-Length: 101

```
[ "$.companies[0].employees[1].name (value)",  
  "$.companies[0].departments.engineering.head (value)" ]
```

10.6. Response Body

```
[ "$.companies[0].employees[1].name (value)",  
  "$.companies[0].departments.engineering.head (value)" ]
```

11. Generate Type Definition

REST API endpoint for creating JSON type definition

11.1. CURL Request

```
$ curl 'http://localhost:8080/api/json/generate-type-definitions' -i -X POST \  
-H 'Content-Type: application/json' \  
-d '{  
  "companies": [  
    {  
      "name": "Tech Solutions Inc.",  
      "founded": 1998,  
      "employees": [  
        {  
          "id": 1,  
          "name": "Alice Smith",  
          "title": "CEO",  
          "contact": {  
            "email": "alice.smith@techsolutions.com",  
            "phone": "+1-555-1234",  
            "address": {  
              "street": "123 Tech Lane",  
              "city": "Innovate City",  
              "state": "CA",  
              "zip": "90001",  
              "coordinates": {  
                "lat": 34.0522,  
                "lng": -118.2437  
              }  
            }  
          }  
        },  
        {  
          "projectId": "p-101",  
          "name": "AI Assistant",  
          "status": "active",  
          "lead": {  
            "name": "John Doe",  
            "email": "john.doe@aiassistant.com",  
            "phone": "+1-555-1234567",  
            "address": {  
              "street": "123 AI Lane",  
              "city": "Innovate City",  
              "state": "CA",  
              "zip": "90001",  
              "coordinates": {  
                "lat": 34.0522,  
                "lng": -118.2437  
              }  
            }  
          }  
        }  
      ]  
    }  
  ]
```

```

    "budget": 1200000.5,
    "milestones": [
        {
            "milestoneId": "m-001",
            "description": "Initial Research",
            "dueDate": "2025-06-30",
            "completed": true
        },
        {
            "milestoneId": "m-002",
            "description": "Prototype Development",
            "dueDate": "2025-09-15",
            "completed": false
        }
    ]
},
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": ["Charlie", "Dana", "Eli"],
                "technologies": ["Node.js", "Python", "PostgreSQL"]
            },
            {
                "teamName": "Frontend",
                "members": ["Fiona", "George"],
                "technologies": ["React", "Angular", "MongoDB"]
            }
        ]
    }
}

```

```
        "technologies": ["React", "Vue", "HTML5", "CSS3"]
    }
]
},
"hr": {
    "head": "Grace Lee",
    "teams": []
}
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",

```

```

        "investment": 500000,
        "equity": 5
    }
]
}
}
]
'

```

11.2. HTTP Request

```

POST /api/json/generate-type-definitions HTTP/1.1
Content-Type: application/json
Content-Length: 3527
Host: localhost:8080

```

```

{
  "companies": [
    {
      "name": "Tech Solutions Inc.",
      "founded": 1998,
      "employees": [
        {
          "id": 1,
          "name": "Alice Smith",
          "title": "CEO",
          "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
              "street": "123 Tech Lane",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90001",
              "coordinates": {
                "lat": 34.0522,
                "lng": -118.2437
              }
            }
          },
          "projects": [
            {
              "projectId": "p-101",
              "name": "AI Assistant",
              "status": "active",
              "budget": 1200000.5,
              "milestones": [
                {

```

```

        "milestoneId": "m-001",
        "description": "Initial Research",
        "dueDate": "2025-06-30",
        "completed": true
    },
    {
        "milestoneId": "m-002",
        "description": "Prototype Development",
        "dueDate": "2025-09-15",
        "completed": false
    }
]
}
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": ["Charlie", "Dana", "Eli"],
                "technologies": ["Node.js", "Python", "PostgreSQL"]
            },
            {
                "teamName": "Frontend",
                "members": ["Fiona", "George"],
                "technologies": ["React", "Vue", "HTML5", "CSS3"]
            }
        ]
    }
}

```

```
},
  "hr": {
    "head": "Grace Lee",
    "teams": []
  }
},
"offices": [
{
  "location": "San Francisco",
  "capacity": 50,
  "openSince": "2010-05-15",
  "facilities": {
    "cafeteria": true,
    "gym": false,
    "parking": {
      "available": true,
      "spots": 20
    }
  }
},
{
  "location": "New York",
  "capacity": 30,
  "openSince": "2015-08-20",
  "facilities": {
    "cafeteria": true,
    "gym": true,
    "parking": {
      "available": false,
      "spots": 0
    }
  }
}
],
"financials": {
  "fiscalYear": 2024,
  "revenue": 5600000,
  "expenses": 3200000,
  "profit": 2400000,
  "currency": "USD",
  "investors": [
    {
      "name": "Capital Ventures",
      "investment": 1000000,
      "equity": 10
    },
    {
      "name": "Tech Angels",
      "investment": 500000,
      "equity": 5
    }
  ]
}
```

```
        ]
    }
}
]
```

11.3. Request Headers

Name	Description
Content-Type	The content type, which must be <code>application/json</code> .

11.4. Request Body

```
{
  "companies": [
    {
      "name": "Tech Solutions Inc.",
      "founded": 1998,
      "employees": [
        {
          "id": 1,
          "name": "Alice Smith",
          "title": "CEO",
          "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
              "street": "123 Tech Lane",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90001",
              "coordinates": {
                "lat": 34.0522,
                "lng": -118.2437
              }
            }
          },
          "projects": [
            {
              "projectId": "p-101",
              "name": "AI Assistant",
              "status": "active",
              "budget": 1200000.5,
              "milestones": [
                {
                  "milestoneId": "m-001",

```

```

        "description": "Initial Research",
        "dueDate": "2025-06-30",
        "completed": true
    },
    {
        "milestoneId": "m-002",
        "description": "Prototype Development",
        "dueDate": "2025-09-15",
        "completed": false
    }
]
}
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": ["Charlie", "Dana", "Eli"],
                "technologies": ["Node.js", "Python", "PostgreSQL"]
            },
            {
                "teamName": "Frontend",
                "members": ["Fiona", "George"],
                "technologies": ["React", "Vue", "HTML5", "CSS3"]
            }
        ]
    },
},

```

```
"hr": {
    "head": "Grace Lee",
    "teams": []
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
{
        "name": "Capital Ventures",
        "investment": 1000000,
        "equity": 10
},
{
        "name": "Tech Angels",
        "investment": 500000,
        "equity": 5
}
]
}
```

```
        }
    }
]
}
```

11.5. HTTP Response

```
HTTP/1.1 200 OK
Content-Type: text/plain; charset=UTF-8
Content-Length: 1495
```

```
interface RootObject {
  companies: Company[];
}

interface Company {
  name: string;
  founded: number;
  employees: Employee[];
  departments: Departments;
  offices: Office[];
  financials: Financials;
}

interface Employee {
  id: number;
  name: string;
  title: string;
  contact: Contact;
  projects: Project[];
}

interface Contact {
  email: string;
  phone: string;
  address: Address;
}

interface Address {
  street: string;
  city: string;
  state: string;
  zip: string;
  coordinates: Coordinates;
}

interface Coordinates {
  lat: number;
  lng: number;
}

interface Project {
  projectId: string;
  name: string;
  status: string;
```

```
    budget: number;
    milestones: Milestone[];
}
interface Milestone {
    milestoneId: string;
    description: string;
    dueDate: string;
    completed: boolean;
}
interface Departments {
    engineering: Department;
    hr: Department;
}
interface Department {
    head: string;
    teams: Team[];
}
interface Team {
    teamName: string;
    members: string[];
    technologies: string[];
}
interface Office {
    location: string;
    capacity: number;
    openSince: string;
    facilities: Facilities;
}
interface Facilities {
    cafeteria: boolean;
    gym: boolean;
    parking: Parking;
}
interface Parking {
    available: boolean;
    spots: number;
}
interface Financials {
    fiscalYear: number;
    revenue: number;
    expenses: number;
    profit: number;
    currency: string;
    investors: Investor[];
}
interface Investor {
    name: string;
    investment: number;
    equity: number;
}
```

11.6. Response Body

```
interface RootObject {  
    companies: Company[];  
}  
interface Company {  
    name: string;  
    founded: number;  
    employees: Employee[];  
    departments: Departments;  
    offices: Office[];  
    financials: Financials;  
}  
interface Employee {  
    id: number;  
    name: string;  
    title: string;  
    contact: Contact;  
    projects: Project[];  
}  
interface Contact {  
    email: string;  
    phone: string;  
    address: Address;  
}  
interface Address {  
    street: string;  
    city: string;  
    state: string;  
    zip: string;  
    coordinates: Coordinates;  
}  
interface Coordinates {  
    lat: number;  
    lng: number;  
}  
interface Project {  
    projectId: string;  
    name: string;  
    status: string;  
    budget: number;  
    milestones: Milestone[];  
}  
interface Milestone {  
    milestoneId: string;  
    description: string;  
    dueDate: string;  
    completed: boolean;  
}  
interface Departments {
```

```
engineering: Department;
hr: Department;
}
interface Department {
  head: string;
  teams: Team[];
}
interface Team {
  teamName: string;
  members: string[];
  technologies: string[];
}
interface Office {
  location: string;
  capacity: number;
  openSince: string;
  facilities: Facilities;
}
interface Facilities {
  cafeteria: boolean;
  gym: boolean;
  parking: Parking;
}
interface Parking {
  available: boolean;
  spots: number;
}
interface Financials {
  fiscalYear: number;
  revenue: number;
  expenses: number;
  profit: number;
  currency: string;
  investors: Investor[];
}
interface Investor {
  name: string;
  investment: number;
  equity: number;
}
```

12. JSON Pretty Print

REST API endpoint for pretty printing JSON

12.1. CURL Request

```
$ curl 'http://localhost:8080/api/json/pretty' -i -X POST \
```

```

-H 'Content-Type: application/json' \
-d '{"company":{"name":"Tech Solutions
Inc.", "founded":1998, "employees":[{"id":1, "name":"Alice
Smith", "title":"CEO", "contact":{"email":"alice.smith@techsolutions.com", "phone":"+1-
555-1234"}, "address":{"street":"123 Tech Lane", "city":"Innovate
City", "state":"CA", "zip":"90001"}, "coordinates":{"lat":34.0522, "lng":-
118.2437}], "projects":[{"projectId":"p-101", "name":"AI
Assistant", "status":"active", "budget":1200000.5, "milestones":[{"milestoneId":"m-
001", "description":"Initial Research", "dueDate":"2025-06-
30", "completed":true}, {"milestoneId":"m-002", "description":"Prototype
Development", "dueDate":"2025-09-15", "completed":false}]}], "id":2, "name":"Bob
Johnson", "title":"CTO", "contact":{"email":"bob.johnson@techsolutions.com", "phone": "+1-
555-5678"}, "address":{"street":"456 Dev Avenue", "city":"Code
Town", "state":"NY", "zip":"10001"}, "coordinates":{"lat":40.7128, "lng":-
74.006}], "projects":[[]], "departments":{"engineering":{"head": "Bob
Johnson", "teams":[{"teamName":"Backend", "members":["Charlie", "Dana", "Eli"], "technologi
es":["Node.js", "Python", "PostgreSQL"]}, {"teamName":"Frontend", "members":["Fiona", "Geor
ge"], "technologies":["React", "Vue", "HTML5", "CSS3"]}], "hr":{"head": "Grace
Lee", "teams":[]}}, "offices":[{"location": "San
Francisco", "capacity": 50, "openSince": "2010-05-
15"}, {"location": "New York", "capacity": 30, "openSince": "2015-08-
20"}, {"facilities":{"cafeteria": true, "gym": false, "parking":{"available": true, "spots": 20}}}, {"financials":{"fiscalYear": 2024, "revenue": 5600000, "expenses": 3200000, "profit": 24000
00, "currency": "USD"}, "investors": [{"name": "Capital
Ventures", "investment": 1000000, "equity": 10}, {"name": "Tech
Angels", "investment": 500000, "equity": 5}]}]}

```

12.2. HTTP Request

```

POST /api/json/pretty HTTP/1.1
Content-Type: application/json
Content-Length: 1740
Host: localhost:8080

```

```

{"company":{"name":"Tech Solutions
Inc.", "founded":1998, "employees":[{"id":1, "name":"Alice
Smith", "title":"CEO", "contact":{"email":"alice.smith@techsolutions.com", "phone":"+1-
555-1234"}, "address":{"street":"123 Tech Lane", "city":"Innovate
City", "state":"CA", "zip":"90001"}, "coordinates":{"lat":34.0522, "lng":-
118.2437}], "projects":[{"projectId":"p-101", "name":"AI
Assistant", "status":"active", "budget":1200000.5, "milestones":[{"milestoneId":"m-
001", "description":"Initial Research", "dueDate":"2025-06-
30", "completed":true}, {"milestoneId":"m-002", "description":"Prototype
Development", "dueDate":"2025-09-15", "completed":false}]}], "id":2, "name":"Bob
Johnson", "title":"CTO", "contact":{"email":"bob.johnson@techsolutions.com", "phone": "+1-
555-5678"}, "address":{"street":"456 Dev Avenue", "city":"Code
Town", "state":"NY", "zip":"10001"}, "coordinates":{"lat":40.7128, "lng":-
74.006}], "projects":[[]], "departments":{"engineering":{"head": "Bob
Johnson", "teams":[{"teamName":"Backend", "members":["Charlie", "Dana", "Eli"], "technologi
es":["Node.js", "Python", "PostgreSQL"]}, {"teamName":"Frontend", "members":["Fiona", "Geor
ge"], "technologies":["React", "Vue", "HTML5", "CSS3"]}], "hr":{"head": "Grace
Lee", "teams":[]}}, "offices":[{"location": "San
Francisco", "capacity": 50, "openSince": "2010-05-
15"}, {"location": "New York", "capacity": 30, "openSince": "2015-08-
20"}, {"facilities":{"cafeteria": true, "gym": false, "parking":{"available": true, "spots": 20}}}, {"financials":{"fiscalYear": 2024, "revenue": 5600000, "expenses": 3200000, "profit": 24000
00, "currency": "USD"}, "investors": [{"name": "Capital
Ventures", "investment": 1000000, "equity": 10}, {"name": "Tech
Angels", "investment": 500000, "equity": 5}]}]}

```

```

Johnson", "teams": [{"teamName": "Backend", "members": ["Charlie", "Dana", "Eli"], "technologies": ["Node.js", "Python", "PostgreSQL"]}, {"teamName": "Frontend", "members": ["Fiona", "George"], "technologies": ["React", "Vue", "HTML5", "CSS3"]}], "hr": {"head": "Grace Lee", "teams": []}, "offices": [{"location": "San Francisco", "capacity": 50, "openSince": "2010-05-15", "facilities": {"cafeteria": true, "gym": false, "parking": {"available": true, "spots": 20}}, {"location": "New York", "capacity": 30, "openSince": "2015-08-20", "facilities": {"cafeteria": true, "gym": true, "parking": {"available": false, "spots": 0}}}], "financials": {"fiscalYear": 2024, "revenue": 5600000, "expenses": 3200000, "profit": 2400000, "currency": "USD"}, "investors": [{"name": "Capital Ventures", "investment": 1000000, "equity": 10}, {"name": "Tech Angels", "investment": 500000, "equity": 5}]}]

```

12.3. Request Headers

Name	Description
Content-Type	The content type, which must be application/json.

12.4. Request Body

```

{
  "company": {
    "name": "Tech Solutions Inc.", "founded": 1998, "employees": [
      {"id": 1, "name": "Alice Smith", "title": "CEO", "contact": {"email": "alice.smith@techsolutions.com", "phone": "+1-555-1234", "address": {"street": "123 Tech Lane", "city": "Innovate City", "state": "CA", "zip": "90001"}, "coordinates": {"lat": 34.0522, "lng": -118.2437}}, {"projects": [
        {"projectId": "p-101", "name": "AI Assistant", "status": "active", "budget": 1200000.5, "milestones": [
          {"milestoneId": "m-001", "description": "Initial Research", "dueDate": "2025-06-30", "completed": true}, {"milestoneId": "m-002", "description": "Prototype Development", "dueDate": "2025-09-15", "completed": false}
        ]}], "id": 2, "name": "Bob Johnson", "title": "CTO", "contact": {"email": "bob.johnson@techsolutions.com", "phone": "+1-555-5678", "address": {"street": "456 Dev Avenue", "city": "Code Town", "state": "NY", "zip": "10001"}, "coordinates": {"lat": 40.7128, "lng": -74.006}}, {"projects": [], "departments": [{"engineering": {"head": "Bob Johnson", "teams": [{"teamName": "Backend", "members": ["Charlie", "Dana", "Eli"], "technologies": ["Node.js", "Python", "PostgreSQL"]}, {"teamName": "Frontend", "members": ["Fiona", "George"], "technologies": ["React", "Vue", "HTML5", "CSS3"]}]}], "hr": {"head": "Grace Lee", "teams": []}, "offices": [{"location": "San Francisco", "capacity": 50, "openSince": "2010-05-15", "facilities": {"cafeteria": true, "gym": false, "parking": {"available": true, "spots": 20}}, {"location": "New York", "capacity": 30, "openSince": "2015-08-20", "facilities": {"cafeteria": true, "gym": true, "parking": {"available": false, "spots": 0}}}], "financials": {"fiscalYear": 2024, "revenue": 5600000, "expenses": 3200000, "profit": 2400000, "currency": "USD"}, "investors": [{"name": "Capital Ventures", "investment": 1000000, "equity": 10}, {"name": "Tech Angels", "investment": 500000, "equity": 5}]}]
  }
}

```

12.5. HTTP Response

HTTP/1.1 200 OK

Content-Type: text/plain; charset=UTF-8

Content-Length: 4346

```
{  
    "company": {  
        "name": "Tech Solutions Inc.",  
        "founded": 1998,  
        "employees": [  
            {  
                "id": 1,  
                "name": "Alice Smith",  
                "title": "CEO",  
                "contact": {  
                    "email": "alice.smith@techsolutions.com",  
                    "phone": "+1-555-1234",  
                    "address": {  
                        "street": "123 Tech Lane",  
                        "city": "Innovate City",  
                        "state": "CA",  
                        "zip": "90001",  
                        "coordinates": {  
                            "lat": 34.0522,  
                            "lng": -118.2437  
                        }  
                    }  
                },  
            },  
            "projects": [  
                {  
                    "projectId": "p-101",  
                    "name": "AI Assistant",  
                    "status": "active",  
                    "budget": 1200000.50,  
                    "milestones": [  
                        {  
                            "milestoneId": "m-001",  
                            "description": "Initial Research",  
                            "dueDate": "2025-06-30",  
                            "completed": true  
                        },  
                        {  
                            "milestoneId": "m-002",  
                            "description": "Prototype Development",  
                            "dueDate": "2025-09-15",  
                            "completed": false  
                        }  
                    ]  
                }  
            ]  
        }  
    }  
}
```

```

        ]
    },
    {
        "id": 2,
        "name": "Bob Johnson",
        "title": "CTO",
        "contact": {
            "email": "bob.johnson@techsolutions.com",
            "phone": "+1-555-5678",
            "address": {
                "street": "456 Dev Avenue",
                "city": "Code Town",
                "state": "NY",
                "zip": "10001",
                "coordinates": {
                    "lat": 40.7128,
                    "lng": -74.0060
                }
            }
        },
        "projects": []
    }
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": ["Charlie", "Dana", "Eli"],
                "technologies": ["Node.js", "Python", "PostgreSQL"]
            },
            {
                "teamName": "Frontend",
                "members": ["Fiona", "George"],
                "technologies": ["React", "Vue", "HTML5", "CSS3"]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
    {
        "location": "San Francisco",
        "capacity": 50,
        "openSince": "2010-05-15",
        "facilities": {
            "cafeteria": true,

```

```

        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
},
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
}
}

```

12.6. Response Body

```
{
    "company": {
        "name": "Tech Solutions Inc.",
        "founded": 1998,
        "employees": 100
    }
}
```

```
"employees": [
    {
        "id": 1,
        "name": "Alice Smith",
        "title": "CEO",
        "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
                "street": "123 Tech Lane",
                "city": "Innovate City",
                "state": "CA",
                "zip": "90001",
                "coordinates": {
                    "lat": 34.0522,
                    "lng": -118.2437
                }
            }
        },
        "projects": [
            {
                "projectId": "p-101",
                "name": "AI Assistant",
                "status": "active",
                "budget": 1200000.50,
                "milestones": [
                    {
                        "milestoneId": "m-001",
                        "description": "Initial Research",
                        "dueDate": "2025-06-30",
                        "completed": true
                    },
                    {
                        "milestoneId": "m-002",
                        "description": "Prototype Development",
                        "dueDate": "2025-09-15",
                        "completed": false
                    }
                ]
            }
        ],
        {
            "id": 2,
            "name": "Bob Johnson",
            "title": "CTO",
            "contact": {
                "email": "bob.johnson@techsolutions.com",
                "phone": "+1-555-5678",
                "address": {
                    "street": "456 Dev Avenue",

```

```
        "city": "Code Town",
        "state": "NY",
        "zip": "10001",
        "coordinates": {
            "lat": 40.7128,
            "lng": -74.0060
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": ["Charlie", "Dana", "Eli"],
                "technologies": ["Node.js", "Python", "PostgreSQL"]
            },
            {
                "teamName": "Frontend",
                "members": ["Fiona", "George"],
                "technologies": ["React", "Vue", "HTML5", "CSS3"]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
    {
        "location": "San Francisco",
        "capacity": 50,
        "openSince": "2010-05-15",
        "facilities": {
            "cafeteria": true,
            "gym": false,
            "parking": {
                "available": true,
                "spots": 20
            }
        }
    },
    {
        "location": "New York",
        "capacity": 30,
        "openSince": "2015-08-20",
    }
]
```

```
"facilities": [
    "cafeteria": true,
    "gym": true,
    "parking": {
        "available": false,
        "spots": 0
    }
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
}
```

13. Validate JSON Schema

REST API endpoint for validating JSON schema

13.1. CURL Request

```
$ curl 'http://localhost:8080/api/json/validate-
schema?schema=%7B%0A%20%20%22$schema%22:%20%22http://json-schema.org/draft-
07/schema%23%22,%0A%20%20%22title%22:%20%22Company%22,%0A%20%20%22type%22:%20%22object
%22,%0A%20%20%22properties%22:%20%7B%0A%20%20%20%20%22company%22:%20%7B%0A%20%20%20%20
%20%20%22type%22:%20%22object%22,%0A%20%20%20%20%20%20%22properties%22:%20%7B%0A%20%20
%20%20%20%20%20%22name%22:%20%7B%20%22type%22:%20%22string%22%20%7D,%0A%20%20%20%20
%20%20%20%20%22founded%22:%20%7B%20%22type%22:%20%22integer%22%20%7D,%0A%20%20%20%20%2
%20%20%20%22employees%22:%20%7B%0A%20%20%20%20%20%20%20%20%20%20%20%20%22type%22:%20%22arr
y%22,%0A%20%20%20%20%20%20%20%20%20%22items%22:%20%7B%0A%20%20%20%20%20%20%20%20%20%20%20
%20%20%20%22type%22:%20%22object%22,%0A%20%20%20%20%20%20%20%20%20%20%20%20%22properti
```



```

ame%22,%20%22founded%22,%20%22employees%22,%20%22departments%22,%20%22offices%22,%20%2
2financials%22%5D%0A%20%20%20%7D%0A%20%20%7D,%0A%20%20%22required%22:%20%5B%22compa
ny%22%5D%0A%7D%0A' -i -X POST \
-H 'Content-Type: application/json' \
-d '{
"company": {
    "name": "Tech Solutions Inc.",
    "founded": 1998,
    "employees": [
        {
            "id": 1,
            "name": "Alice Smith",
            "title": "CEO",
            "contact": {
                "email": "alice.smith@techsolutions.com",
                "phone": "+1-555-1234",
                "address": {
                    "street": "123 Tech Lane",
                    "city": "Innovate City",
                    "state": "CA",
                    "zip": "90001",
                    "coordinates": {
                        "lat": 34.0522,
                        "lng": -118.2437
                    }
                }
            },
            "projects": [
                {
                    "projectId": "p-101",
                    "name": "AI Assistant",
                    "status": "active",
                    "budget": 1200000.5,
                    "milestones": [
                        {
                            "milestoneId": "m-001",
                            "description": "Initial Research",
                            "dueDate": "2025-06-30",
                            "completed": true
                        },
                        {
                            "milestoneId": "m-002",
                            "description": "Prototype Development",
                            "dueDate": "2025-09-15",
                            "completed": false
                        }
                    ]
                }
            ],
            {

```

```
"id": 2,
"name": "Bob Johnson",
"title": "CTO",
"contact": {
    "email": "bob.johnson@techsolutions.com",
    "phone": "+1-555-5678",
    "address": {
        "street": "456 Dev Avenue",
        "city": "Code Town",
        "state": "NY",
        "zip": "10001",
        "coordinates": {
            "lat": 40.7128,
            "lng": -74.006
        }
    }
},
"projects": []
},
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": ["Charlie", "Dana", "Eli"],
                "technologies": ["Node.js", "Python", "PostgreSQL"]
            },
            {
                "teamName": "Frontend",
                "members": ["Fiona", "George"],
                "technologies": ["React", "Vue", "HTML5", "CSS3"]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
    {
        "location": "San Francisco",
        "capacity": 50,
        "openSince": "2010-05-15",
        "facilities": {
            "cafeteria": true,
            "gym": false,
            "parking": {
                "available": true,
                "size": "Large"
            }
        }
    }
]
```

```

        "spots": 20
    }
}
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
},
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
}
}
'
```

13.2. HTTP Request

```
POST /api/json/validate-schema?schema=%7B%0A%20%20%22$schema%22%3A%20%22http://json-schema.org/draft-07/schema%23%22,%0A%20%20%22title%22%3A%20%22Company%22,%0A%20%20%22type%22%3A%20%22object%22,%0A%20%20%22properties%22%3A%20%7B%0A%20%20%20%20%22company%22%3A%20%7B%0A%20%20%20%20%22type%22%3A%20%22object%22,%0A%20%20%20%20%20%22properties%22%3A%20%7B%0A%20%20%20%20%20%22name%22%3A%20%7B%20%22type%22%3A%20%22string%22%20%7D,%0A%20%20%20%20%20%22
```



```
%7D%0A%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%20%7D,%0A%
20%20%20%20%20%20%20%20%20%20%22required%22:%20%5B%22fiscalYear%22,%20%22revenue%22,%2
0%22expenses%22,%20%22profit%22,%20%22currency%22,%20%22investors%22%5D%0A%20%20%20%20
%20%20%20%7D%0A%20%20%20%20%20%20%20%20%20%20%20%20%20%22required%22:%20%5B%22n
ame%22,%20%22founded%22,%20%22employees%22,%20%22departments%22,%20%22offices%22,%20%2
2financials%22%5D%0A%20%20%20%20%7D%0A%20%20%7D,%0A%20%20%22required%22:%20%5B%22compa
ny%22%5D%0A%7D%0A HTTP/1.1
Content-Type: application/json
Content-Length: 3247
Host: localhost:8080
```

```
{
  "company": {
    "name": "Tech Solutions Inc.",
    "founded": 1998,
    "employees": [
      {
        "id": 1,
        "name": "Alice Smith",
        "title": "CEO",
        "contact": {
          "email": "alice.smith@techsolutions.com",
          "phone": "+1-555-1234",
          "address": {
            "street": "123 Tech Lane",
            "city": "Innovate City",
            "state": "CA",
            "zip": "90001",
            "coordinates": {
              "lat": 34.0522,
              "lng": -118.2437
            }
          }
        },
        "projects": [
          {
            "projectId": "p-101",
            "name": "AI Assistant",
            "status": "active",
            "budget": 1200000.5,
            "milestones": [
              {
                "milestoneId": "m-001",
                "description": "Initial Research",
                "dueDate": "2025-06-30",
                "completed": true
              },
              {
                "milestoneId": "m-002",
                "description": "Prototype Development",
                "dueDate": "2025-09-15",
                "completed": false
              }
            ]
          }
        ]
      }
    ],
    "finances": [
      {
        "year": "2023-24",
        "fiscalYear": "2023-24",
        "revenue": 10000000.0,
        "expenses": 6000000.0,
        "profit": 4000000.0,
        "currency": "USD"
      },
      {
        "year": "2024-25",
        "fiscalYear": "2024-25",
        "revenue": 12000000.0,
        "expenses": 7000000.0,
        "profit": 5000000.0,
        "currency": "USD"
      }
    ]
  }
}
```

```
        "completed": false
    }
]
}
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": ["Charlie", "Dana", "Eli"],
                "technologies": ["Node.js", "Python", "PostgreSQL"]
            },
            {
                "teamName": "Frontend",
                "members": ["Fiona", "George"],
                "technologies": ["React", "Vue", "HTML5", "CSS3"]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
{
    "location": "San Francisco",
```

```
        "capacity": 50,
        "openSince": "2010-05-15",
        "facilities": {
            "cafeteria": true,
            "gym": false,
            "parking": {
                "available": true,
                "spots": 20
            }
        }
    },
    {
        "location": "New York",
        "capacity": 30,
        "openSince": "2015-08-20",
        "facilities": {
            "cafeteria": true,
            "gym": true,
            "parking": {
                "available": false,
                "spots": 0
            }
        }
    }
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
}
}
```

13.3. Request Headers

Name	Description
Content-Type	The content type, which must be application/json.

13.4. Request Body

```
{
  "company": {
    "name": "Tech Solutions Inc.",
    "founded": 1998,
    "employees": [
      {
        "id": 1,
        "name": "Alice Smith",
        "title": "CEO",
        "contact": {
          "email": "alice.smith@techsolutions.com",
          "phone": "+1-555-1234",
          "address": {
            "street": "123 Tech Lane",
            "city": "Innovate City",
            "state": "CA",
            "zip": "90001",
            "coordinates": {
              "lat": 34.0522,
              "lng": -118.2437
            }
          }
        },
      ],
      "projects": [
        {
          "projectId": "p-101",
          "name": "AI Assistant",
          "status": "active",
          "budget": 1200000.5,
          "milestones": [
            {
              "milestoneId": "m-001",
              "description": "Initial Research",
              "dueDate": "2025-06-30",
              "completed": true
            },
            {
              "milestoneId": "m-002",
              "description": "Prototype Development",
              "dueDate": "2025-09-15",
            }
          ]
        }
      ]
    }
  }
}
```

```

        "completed": false
    }
]
}
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": ["Charlie", "Dana", "Eli"],
                "technologies": ["Node.js", "Python", "PostgreSQL"]
            },
            {
                "teamName": "Frontend",
                "members": ["Fiona", "George"],
                "technologies": ["React", "Vue", "HTML5", "CSS3"]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
{
    "location": "San Francisco",

```

```
        "capacity": 50,
        "openSince": "2010-05-15",
        "facilities": {
            "cafeteria": true,
            "gym": false,
            "parking": {
                "available": true,
                "spots": 20
            }
        }
    },
    {
        "location": "New York",
        "capacity": 30,
        "openSince": "2015-08-20",
        "facilities": {
            "cafeteria": true,
            "gym": true,
            "parking": {
                "available": false,
                "spots": 0
            }
        }
    }
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
}
}
```

13.5. HTTP Response

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: 4

true
```

13.6. Response Body

```
true
```

14. Merge two JSONs

REST API endpoint for merging two JSONs

14.1. CURL Request

```
$ curl 'http://localhost:8080/api/json/merge' -i -X POST \
-H 'Content-Type: application/json' \
-d '["{\n    \"company\": {\n        \"name\": \"Tech Solutions Inc.\",\n        \"founded\": 1998,\n        \"employees\": [\n            {\n                \"id\": 1,\n                \"name\": \"Alice Smith\",\n                \"title\": \"CEO\",\n                \"contact\": {\n                    \"email\": \"alice.smith@techsolutions.com\",\n                    \"phone\": \"+1-555-1234\",\n                    \"address\": {\n                        \"street\": \"123 Tech\nLane\", \"city\": \"Innovate City\", \"state\": \"CA\", \"zip\": \"90001\", \"coordinates\": {\n                            \"lat\": 34.0522,\n                            \"lng\": -118.2437\n                        }\n                    },\n                    \"projects\": [\n                        {\n                            \"projectId\": \"p-101\",\n                            \"name\": \"AI Assistant\",\n                            \"status\": \"active\",\n                            \"budget\": 1200000.5,\n                            \"milestones\": [\n                                {\n                                    \"description\": \"Initial Research\",\n                                    \"dueDate\": \"2025-06-30\",\n                                    \"completed\": true\n                                },\n                                {\n                                    \"description\": \"Prototype Development\",\n                                    \"dueDate\": \"2025-09-15\",\n                                    \"completed\": false\n                                }\n                            ],\n                            \"title\": \"CTO\",\n                            \"contact\": {\n                                \"name\": \"Bob Johnson\",\n                                \"email\": \"bob.johnson@techsolutions.com\",\n                                \"phone\": \"+1-555-5678\",\n                                \"address\": {\n                                    \"street\": \"456 Dev\nAvenue\", \"city\": \"Code Town\", \"state\": \"NY\", \"zip\": \"10001\", \"coordinates\": {\n                                        \"lat\": 40.7128,\n                                        \"lng\": -74.006\n                                    }\n                                },\n                                \"projects\": []\n                            }\n                        }\n                    ]\n                }\n            }\n        ]\n    }\n}']
```

```

\"departments\": {\n    \"engineering\": {\n        \"teams\": [\n            \"members\": [\n                \"Eli\", \"Node.js\", \"Python\", \"Frontend\", \"members\": [\n                    \"Fiona\", \"George\", \"React\", \"Vue\", \"HTML5\", \"CSS3\", \"hr\": {\n                        \"head\": \"Grace Lee\", \"offices\": [\n                            \"location\": \"San Francisco\", \"capacity\": 50, \"openSince\": \"2010-05-15\", \"facilities\": {\n                                \"cafeteria\": true, \"gym\": false, \"available\": true, \"spots\": 20\n                            },\n                            \"location\": \"New York\", \"facilities\": {\n                                \"cafeteria\": true, \"gym\": true, \"available\": false, \"spots\": 0\n                            }\n                        },\n                        \"financials\": {\n                            \"revenue\": 5600000, \"expenses\": 3200000, \"profit\": 2400000, \"currency\": \"USD\", \"investors\": [\n                                {\n                                    \"name\": \"Capital Ventures\", \"equity\": 10\n                                },\n                                {\n                                    \"name\": \"Tech Angels\", \"investment\": 500000, \"equity\": 5\n                                }\n                            ],\n                            \"company\": {\n                                \"name\": \"Future Innovations Ltd.\", \"founded\": 2005, \"employees\": [\n                                    {\n                                        \"id\": 1, \"name\": \"Jane Doe\", \"title\": \"Founder\", \"contact\": {\n                                            \"email\": \"jane.doe@futureinnovations.com\", \"phone\": \"+44-20-9876\", \"address\": \"789 Future Blvd\", \"city\": \"Tech Haven\", \"state\": \"TX\", \"zip\": \"73301\", \"coordinates\": {\n                                                \"lat\": 30.2672, \"lng\": -97.7431\n                                            }\n                                        },\n                                        {\n                                            \"id\": 2, \"name\": \"Mark Twain\", \"title\": \"COO\", \"contact\": {\n                                                \"email\": \"mark.twain@futureinnovations.com\", \"phone\": \"+44-20-5432\", \"address\": {\n                                                    \"street\": \"321 Innovation Road\", \"city\": \"Tech Haven\", \"state\": \"TX\", \"zip\": \"73301\", \"coordinates\": {\n                                                        \"lat\": 30.2672, \"lng\": -97.7431\n                                                    }\n                                                },\n                                                \"projects\": []\n                                            }\n                                        }\n                                    ]\n                                }\n                            }\n                        }\n                    ]\n                }\n            ]\n        }\n    }\n}\n

```

```

\"engineering\": {\n    \"head\": \"Mark Twain\", \"teams\": [\n        {\n            \"teamName\": \"Cloud\", \"members\": [\n                \"Liam\", \"Emma\", \"Olivia\" ],\n            \"technologies\": [\n                \"AWS\", \"Azure\" ],\n            \"teamName\": \"IoT\", \"members\": [\n                \"Ava\" ],\n            \"technologies\": [\n                \"Raspberry Pi\", \"Arduino\", \"MQTT\" ]\n        },\n        {\n            \"teamName\": \"Google Cloud\", \"members\": [\n                \"Sophie Turner\" ],\n            \"technologies\": [\n                \"Raspberry Pi\", \"Arduino\", \"MQTT\" ]\n        }\n    ],\n    \"openSince\": \"2018-03-10\", \"facilities\": {\n        \"cafeteria\": true, \"gym\": true, \"parking\": {\n            \"available\": true, \"spots\": 25\n        },\n        {\n            \"location\": \"London\", \"capacity\": 20,\n            \"openSince\": \"2021-11-05\", \"facilities\": {\n                \"cafeteria\": true, \"gym\": false, \"parking\": {\n                    \"available\": true, \"spots\": 10\n                },\n                \"financials\": {\n                    \"fiscalYear\": 2024,\n                    \"revenue\": 8000000, \"expenses\": 4500000, \"profit\": 3500000,\n                    \"currency\": \"GBP\", \"investors\": [\n                        {\n                            \"name\": \"Global Tech Fund\", \"investment\": 2000000,\n                            \"equity\": 15\n                        },\n                        {\n                            \"name\": \"Startup Angels\", \"investment\": 750000, \"equity\": 7\n                        }\n                    ]\n                }\n            }\n        }\n    }\n}

```

14.2. HTTP Request

POST /api/json/merge HTTP/1.1
Content-Type: application/json
Content-Length: 8565
Host: localhost:8080

```

[{\n    \"company\": {\n        \"name\": \"Tech Solutions Inc.\",\n        \"founded\": 1998,\n        \"employees\": [\n            {\n                \"id\": 1,\n                \"name\": \"Alice Smith\", \"title\": \"CEO\", \"contact\": {\n                    \"email\": \"alice.smith@techsolutions.com\", \"phone\": \"+1-555-1234\", \"address\": {\n                        \"street\": \"123 Tech Lane\", \"city\": \"Innovate City\", \"state\": \"CA\", \"zip\": \"90001\"},\n                        \"coordinates\": {\n                            \"lat\": 34.0522, \"lng\": -118.2437\n                        }\n                    },\n                    \"projects\": [\n                        {\n                            \"projectId\": \"p-101\", \"name\": \"AI Assistant\", \"status\": \"active\", \"budget\": 1200000.5,\n                            \"milestones\": [\n                                {\n                                    \"description\": \"Initial Research\", \"dueDate\": \"2025-06-30\", \"completed\": true\n                                },\n                                {\n                                    \"description\": \"Prototype Development\", \"dueDate\": \"2025-\n
```

```

09-15\", \n          \"completed\": false\n          }\n        ]\n      },\n      \"name\": \"Bob Johnson\", \n      \"title\": \"CTO\", \n      \"contact\":\n      {\n        \"email\": \"bob.johnson@techsolutions.com\", \n        \"phone\": \"+1-555-5678\", \n        \"address\": {\n          \"city\": \"Code Town\", \n          \"street\": \"456 Dev Avenue\", \n          \"state\": \"NY\", \n          \"zip\": \"10001\", \n          \"lat\": 40.7128, \n          \"lon\": -74.006\n        }\n      },\n      \"projects\": [],\n      \"departments\": {\n        \"engineering\": {\n          \"head\": \"Bob Johnson\", \n          \"teams\": [\n            {\n              \"members\": [\n                \"Dana\", \n                \"Eli\"\n              ],\n              \"teamName\": \"Backend\", \n              \"technologies\": [\n                \"Node.js\", \n                \"Python\", \n                \"PostgreSQL\"\n              ],\n              \"teamName\": \"Frontend\", \n              \"members\": [\n                \"Fiona\", \n                \"George\"\n              ],\n              \"technologies\": [\n                \"React\", \n                \"Vue\", \n                \"HTML5\", \n                \"CSS3\"\n              ],\n              \"hr\": {\n                \"head\": \"Grace Lee\", \n                \"teams\": [],\n                \"offices\": [\n                  {\n                    \"location\": \"San Francisco\", \n                    \"capacity\": 50,\n                    \"openSince\": \"2010-05-15\", \n                    \"facilities\": {\n                      \"cafeteria\": true,\n                      \"gym\": false,\n                      \"available\": true,\n                      \"spots\": 20\n                    },\n                    \"location\": \"New York\", \n                    \"capacity\": 30,\n                    \"openSince\": \"2015-08-20\", \n                    \"facilities\": {\n                      \"cafeteria\": true,\n                      \"gym\": true,\n                      \"available\": false,\n                      \"spots\": 0\n                    },\n                    \"financials\": {\n                      \"fiscalYear\": 2024,\n                      \"revenue\": 5600000,\n                      \"expenses\": 3200000,\n                      \"profit\": 2400000,\n                      \"currency\": \"USD\"\n                    },\n                    \"investors\": [\n                      {\n                        \"name\": \"Tech Angels\", \n                        \"investment\": 1000000,\n                        \"equity\": 5,\n                        \"company\": {\n                          \"name\": \"Future Innovations Ltd.\",\n                          \"founded\": 2005,\n                          \"employees\": [\n                            {\n                              \"id\": 1,\n                              \"name\": \"Jane Doe\", \n                              \"title\": \"Founder\", \n                              \"contact\": {\n                                \"email\": \"jane.doe@futureinnovations.com\", \n                                \"phone\": \"+44-20-9876\", \n                                \"address\": {\n                                  \"city\": \"Tech Haven\", \n                                  \"state\": \"TX\", \n                                  \"zip\": \"73301\", \n                                  \"lat\": 30.2672, \n                                  \"lon\": -97.7431\n                                }\n                              },\n                              \"projects\": [\n                                {\n                                  \"name\": \"Smart Home Automation\", \n                                  \"status\": \"completed\", \n                                  \"milestones\": [\n                                    {\n                                      \"completed\": true\n                                    }\n                                  ],\n                                  \"description\": \"Market Research\", \n                                  \"dueDate\": \"2024-05-15\", \n                                  \"milestoneId\": \"m-101\", \n                                  \"budget\": 2000000,\n                                  \"description\": \"Prototype Deployment\", \n                                  \"dueDate\": \"2024-12-01\"\n                                }\n                              ]\n                            }\n                          }\n                        }\n                      ]\n                    }\n                  }\n                ]\n              }\n            }\n          }\n        }\n      }\n    }\n  }\n}
```

```

  "completed": true
    }
  ]
}
]

},\n      {"\n        "id": 2,\n        "name": "Mark Twain",\n        "\n      \"title\": \"COO\",\\n      \"contact\": {\n        \"email\": \"mark.twain@futureinnovations.com\",\\n        \"phone\": \"+44-20-5432\",\\n\n      \"address\": {\n        \"street\": \"321 Innovation Road\",\\n        \"city\": \"Tech Haven\",\\n        \"state\": \"TX\",\\n        \"zip\": \"73301\",\\n        \"coordinates\": {\n          \"lat\": 30.2672,\n          \"lng\": -97.7431\n        }\n      },\n      \"projects\": []\n      },\n      \"departments\": {\n        \"engineering\": {\n          \"head\": \"Mark Twain\",\\n          \"teams\": [\n            {\n              \"teamName\": \"Cloud\",\\n              \"members\": [\n                \"Liam\",\\n                \"Emma\",\\n                \"Olivia\"\n              ],\n              \"technologies\": [\n                \"AWS\",\\n                \"Azure\"\n              ],\n              \"teamName\": \"IoT\",\\n              \"members\": [\n                \"Ava\",\\n                \"Noah\"\n              ],\n              \"technologies\": [\n                \"Raspberry Pi\",\\n                \"Arduino\",\\n                \"MQTT\"\n              ],\n              \"hr\": {\n                \"head\": \"Sophie Turner\",\\n                \"teams\": []\n              },\n              \"location\": \"Austin\",\\n              \"capacity\": 40,\n              \"openSince\": \"2018-03-10\",\\n              \"facilities\": {\n                \"cafeteria\": true,\n                \"gym\": true,\n                \"parking\": {\n                  \"available\": true,\n                  \"spots\": 25\n                },\n                \"location\": \"London\",\\n                \"capacity\": 20,\n                \"openSince\": \"2021-11-05\",\\n                \"facilities\": {\n                  \"cafeteria\": true,\n                  \"gym\": false,\n                  \"parking\": {\n                    \"available\": true,\n                    \"spots\": 10\n                  },\n                  \"financials\": {\n                    \"fiscalYear\": 2024,\n                    \"revenue\": 8000000,\n                    \"expenses\": 4500000,\n                    \"profit\": 3500000,\n                    \"currency\": \"GBP\",\\n                    \"investors\": [\n                      {\n                        \"name\": \"Global Tech Fund\",\\n                        \"investment\": 2000000,\n                        \"equity\": 15\n                      },\n                      {\n                        \"name\": \"Startup Angels\",\\n                        \"investment\": 750000,\n                        \"equity\": 7\n                      }\n                    ]\n                  }\n                }\n              }\n            }\n          ]\n        }\n      }\n    }\n  ]
}
]

```

14.3. Request Headers

Name	Description
Content-Type	The content type, which must be <code>application/json</code> .

14.4. Request Body

```

[{"\n      \"company\": {\n        \"name\": \"Tech Solutions Inc.\",\\n        \"\n      \"founded\": 1998,\n      \"employees\": [\n        {\n          \"id\": 1,\n          \"name\": \"Alice Smith\",\\n          \"title\": \"CEO\",\\n          \"\n          \"contact\": {\n            \"email\": \"alice.smith@techsolutions.com\",\\n            \"\n          }\n        }\n      ]\n    }\n  ]
}
]

```

```

"+1-555-1234\", \n          \"address\": {\n            \"city\": \"Innovate City\", \n            \"zip\": \"90001\", \n            \"lat\": 34.0522, \n            \"lon\": -118.2437\n          }, \n          \"projects\": [\n            {\n              \"name\": \"AI Assistant\", \n              \"status\": \"active\", \n              \"milestones\": [\n                {\n                  \"description\": \"Initial Research\", \n                  \"dueDate\": \"2025-06-30\", \n                  \"completed\": true\n                }, \n                {\n                  \"milestoneId\": \"m-001\", \n                  \"description\": \"Prototype Development\", \n                  \"dueDate\": \"2025-09-15\", \n                  \"completed\": false\n                }\n              ], \n              \"name\": \"Bob Johnson\", \n              \"title\": \"CTO\", \n              \"email\": \"bob.johnson@techsolutions.com\", \n              \"phone\": "+1-555-5678\", \n              \"address\": {\n                \"city\": \"Code Town\", \n                \"zip\": \"10001\", \n                \"lat\": 40.7128, \n                \"lon\": -74.006\n              }, \n              \"departments\": {\n                \"engineering\": {\n                  \"head\": \"Bob Johnson\", \n                  \"teams\": [\n                    {\n                      \"members\": [\n                        \"Charlie\", \n                        \"Dana\", \n                        \"Eli\"\n                      ], \n                      \"technologies\": [\n                        \"Node.js\", \n                        \"PostgreSQL\"\n                      ], \n                      \"teamName\": \"Frontend\", \n                      \"members\": [\n                        \"Fiona\", \n                        \"George\", \n                        \"React\", \n                        \"CSS3\"\n                      ], \n                      \"hr\": {\n                        \"head\": \"Grace Lee\", \n                        \"offices\": [\n                          {\n                            \"location\": \"San Francisco\", \n                            \"capacity\": 50, \n                            \"openSince\": \"2010-05-15\", \n                            \"facilities\": {\n                              \"cafeteria\": true, \n                              \"gym\": false, \n                              \"parking\": {\n                                \"available\": true, \n                                \"spots\": 20\n                              }, \n                              \"location\": \"New York\", \n                              \"capacity\": 30, \n                              \"openSince\": \"2015-08-20\", \n                              \"facilities\": {\n                                \"cafeteria\": true, \n                                \"gym\": true, \n                                \"parking\": {\n                                  \"available\": false, \n                                  \"spots\": 0\n                                }, \n                                \"financials\": {\n                                  \"fiscalYear\": 2024, \n                                  \"expenses\": 3200000, \n                                  \"profit\": 2400000, \n                                  \"investors\": [\n                                    {\n                                      \"name\": \"Capital Ventures\", \n                                      \"investment\": 1000000, \n                                      \"equity\": 10\n                                    }, \n                                    {\n                                      \"name\": \"Tech Angels\", \n                                      \"investment\": 500000, \n                                      \"equity\": 5\n                                    }\n                                  ], \n                                  \"company\": {\n                                    \"name\": \"Future Innovations Ltd.\", \n                                    \"founded\": 2005, \n                                    \"employees\": [\n                                      {\n                                        \"name\": \"Jane Doe\", \n                                        \"title\": \"Founder\", \n                                        \"contact\": {\n                                          \"id\": 1, \n                                          \"email\": \"jane.doe@futureinnovations.com\", \n                                          \"phone\": \"+44-20-9876\n                                        }\n                                      }\n                                    ]\n                                  }\n                                }\n                              }\n                            }\n                          }\n                        }\n                      ]\n                    }\n                  ]\n                }\n              ]\n            }\n          ]\n        }\n      ]\n    }\n  ]\n}\n
```

```

",\n      "address": {\n        "street": "789 Future Blvd",\n        "city": "Tech Haven",\n        "state": "TX",\n        "zip": "73301",\n        "lat": 30.2672,\n        "lng": -97.7431\n      },\n      "coordinates": {\n        "lat": 30.2672,\n        "lng": -97.7431\n      },\n      "projectId": "P-201",\n      "name": "Smart Home Automation",\n      "status": "completed",\n      "budget": 2000000,\n      "milestones": [\n        {"description": "Market Research",\n         "completed": true},\n        {"description": "Prototype Deployment",\n         "dueDate": "2024-12-01",\n         "completed": true}\n      ],\n      "id": 2,\n      "name": "Mark Twain",\n      "title": "COO",\n      "contact": {\n        "email": "mark.twain@futureinnovations.com",\n        "phone": "+44-20-5432"},\n      "address": {\n        "street": "321 Innovation Road",\n        "city": "Tech Haven",\n        "state": "TX",\n        "zip": "73301"},\n      "coordinates": {\n        "lat": 30.2672,\n        "lng": -97.7431\n      },\n      "projects": [],\n      "departments": {\n        "engineering": {\n          "head": "Mark Twain",\n          "teams": [\n            {"teamName": "Cloud",\n             "members": ["Liam",\n                        "Emma",\n                        "Olivia"],\n             "technologies": ["AWS",\n                           "Azure"]},\n            {"teamName": "IoT",\n             "members": ["Noah",\n                        "Ava"],\n             "technologies": ["Raspberry Pi",\n                           "Arduino"]}],\n          "hr": {\n            "head": "Sophie Turner",\n            "teams": []}},\n        "offices": [\n          {"location": "Austin",\n           "capacity": 40,\n           "openSince": "2018-03-10",\n           "facilities": {\n             "cafeteria": true,\n             "gym": true,\n             "parking": {\n               "available": true,\n               "spots": 25\n             },\n             "location": "London",\n             "capacity": 20,\n             "openSince": "2021-11-05",\n             "facilities": {\n               "cafeteria": true,\n               "gym": false,\n               "parking": {\n                 "available": true,\n                 "spots": 10\n               },\n               "financials": {\n                 "fiscalYear": 2024,\n                 "revenue": 8000000,\n                 "expenses": 4500000,\n                 "profit": 3500000,\n                 "currency": "GBP",\n                 "investors": [\n                   {"name": "Global Tech Fund",\n                    "investment": 2000000,\n                    "equity": 15},\n                   {"name": "Startup Angels",\n                    "investment": 750000,\n                    "equity": 7}\n                 ]\n               }\n             }\n           }\n         ]\n       }\n     }\n   }\n }

```

14.5. HTTP Response

HTTP/1.1 200 OK

Content-Type: text/plain;charset=UTF-8

Content-Length: 8139

```
{  
    "companies": [  
        {  
            "name": "Tech Solutions Inc.",  
            "founded": 1998,  
            "employees": [  
                {  
                    "id": 1,  
                    "name": "Alice Smith",  
                    "title": "CEO",  
                    "contact": {  
                        "email": "alice.smith@techsolutions.com",  
                        "phone": "+1-555-1234",  
                        "address": {  
                            "street": "123 Tech Lane",  
                            "city": "Innovate City",  
                            "state": "CA",  
                            "zip": "90001",  
                            "coordinates": {  
                                "lat": 34.0522,  
                                "lng": -118.2437  
                            }  
                        }  
                    }  
                },  
                {  
                    "name": "Bob Johnson",  
                    "title": "CFO",  
                    "contact": {  
                        "email": "bob.johnson@techsolutions.com",  
                        "phone": "+1-555-1235",  
                        "address": {  
                            "street": "456 Innovation St",  
                            "city": "Innovate City",  
                            "state": "CA",  
                            "zip": "90002",  
                            "coordinates": {  
                                "lat": 34.0523,  
                                "lng": -118.2438  
                            }  
                        }  
                    }  
                }  
            ],  
            "projects": [  
                {  
                    "projectId": "p-101",  
                    "name": "AI Assistant",  
                    "status": "active",  
                    "budget": 1200000.5,  
                    "milestones": [  
                        {  
                            "milestoneId": "m-001",  
                            "description": "Initial Research",  
                            "dueDate": "2025-06-30",  
                            "completed": true  
                        },  
                        {  
                            "milestoneId": "m-002",  
                            "description": "Prototype Development",  
                            "dueDate": "2025-09-15",  
                            "completed": false  
                        }  
                    ]  
                },  
                {  
                    "name": "Project Alpha",  
                    "status": "planned",  
                    "budget": 800000.0,  
                    "milestones": [  
                        {  
                            "milestoneId": "m-003",  
                            "description": "Market Research",  
                            "dueDate": "2025-07-15",  
                            "completed": false  
                        }  
                    ]  
                }  
            ]  
        }  
    ]  
}
```

```
[{"id": 2, "name": "Bob Johnson", "title": "CTO", "contact": {"email": "bob.johnson@techsolutions.com", "phone": "+1-555-5678", "address": {"street": "456 Dev Avenue", "city": "Code Town", "state": "NY", "zip": "10001", "coordinates": {"lat": 40.7128, "lng": -74.006}}}, {"projects": []}], "departments": {"engineering": {"head": "Bob Johnson", "teams": [{"teamName": "Backend", "members": ["Charlie", "Dana", "Eli"], "technologies": ["Node.js", "Python", "PostgreSQL"]}, {"teamName": "Frontend", "members": ["Fiona", "George"], "technologies": ["React", "Vue", "HTML5", "CSS3"]}]}}, {"marketing": {"head": "Sarah Williams", "teams": [{"teamName": "Digital Marketing", "members": ["Mike", "Sarah", "David"], "technologies": ["SEO", "SEM", "Content Marketing"]}, {"teamName": "Social Media", "members": ["Emily", "Jordan", "Olivia"], "technologies": ["Facebook Ads", "Instagram Stories", "Twitter Analytics"]}]}}]
```

```
},
"hr": {
    "head": "Grace Lee",
    "teams": []
}
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
}
```

```
        ]
    }
},
{
  "name": "Future Innovations Ltd.",
  "founded": 2005,
  "employees": [
    {
      "id": 1,
      "name": "Jane Doe",
      "title": "Founder",
      "contact": {
        "email": "jane.doe@futureinnovations.com",
        "phone": "+44-20-9876",
        "address": {
          "street": "789 Future Blvd",
          "city": "Tech Haven",
          "state": "TX",
          "zip": "73301",
          "coordinates": {
            "lat": 30.2672,
            "lng": -97.7431
          }
        }
      }
    },
    "projects": [
      {
        "projectId": "p-201",
        "name": "Smart Home Automation",
        "status": "completed",
        "budget": 2000000,
        "milestones": [
          {
            "milestoneId": "m-101",
            "description": "Market Research",
            "dueDate": "2024-05-15",
            "completed": true
          },
          {
            "milestoneId": "m-102",
            "description": "Prototype Deployment",
            "dueDate": "2024-12-01",
            "completed": true
          }
        ]
      }
    ],
    {
      "id": 2,
      "name": "Mark Twain",

```

```
"title": "COO",
"contact": {
    "email": "mark.twain@futureinnovations.com",
    "phone": "+44-20-5432",
    "address": {
        "street": "321 Innovation Road",
        "city": "Tech Haven",
        "state": "TX",
        "zip": "73301",
        "coordinates": {
            "lat": 30.2672,
            "lng": -97.7431
        }
    }
},
"projects": []
},
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "technologies": [
                    "AWS",
                    "Azure",
                    "Google Cloud"
                ]
            },
            {
                "teamName": "IoT",
                "members": [
                    "Noah",
                    "Ava"
                ],
                "technologies": [
                    "Raspberry Pi",
                    "Arduino",
                    "MQTT"
                ]
            }
        ]
    },
    "hr": {
        "head": "Sophie Turner",

```

```
        "teams": []
    }
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
}
```

```
]  
}
```

14.6. Response Body

```
{  
  "companies": [  
    {  
      "name": "Tech Solutions Inc.",  
      "founded": 1998,  
      "employees": [  
        {  
          "id": 1,  
          "name": "Alice Smith",  
          "title": "CEO",  
          "contact": {  
            "email": "alice.smith@techsolutions.com",  
            "phone": "+1-555-1234",  
            "address": {  
              "street": "123 Tech Lane",  
              "city": "Innovate City",  
              "state": "CA",  
              "zip": "90001",  
              "coordinates": {  
                "lat": 34.0522,  
                "lng": -118.2437  
              }  
            }  
          }  
        },  
        {  
          "name": "Bob Johnson",  
          "title": "CFO",  
          "contact": {  
            "email": "bob.johnson@techsolutions.com",  
            "phone": "+1-555-1235",  
            "address": {  
              "street": "456 Innovation St",  
              "city": "Innovate City",  
              "state": "CA",  
              "zip": "90002",  
              "coordinates": {  
                "lat": 34.0523,  
                "lng": -118.2438  
              }  
            }  
          }  
        }  
      ],  
      "projects": [  
        {  
          "projectId": "p-101",  
          "name": "AI Assistant",  
          "status": "active",  
          "budget": 1200000.5,  
          "milestones": [  
            {  
              "milestoneId": "m-001",  
              "description": "Initial Research",  
              "dueDate": "2025-06-30",  
              "completed": true  
            },  
            {  
              "milestoneId": "m-002",  
              "description": "Prototype Development",  
              "dueDate": "2025-09-15",  
              "completed": false  
            }  
          ]  
        }  
      ]  
    }  
  ]  
}
```

```
        }
    ],
},
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            }
        ],
        {
            "teamName": "Frontend",
            "members": [
                "Fiona",
                "George"
            ],
            "technologies": [
                "React",
                "Vue",
                "HTML5",
            ]
        }
    }
}
```

```
        "CSS3"
    ]
}
]
},
"hr": {
    "head": "Grace Lee",
    "teams": []
}
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {

```

```
        "name": "Tech Angels",
        "investment": 500000,
        "equity": 5
    }
]
}
},
{
  "name": "Future Innovations Ltd.",
  "founded": 2005,
  "employees": [
    {
      "id": 1,
      "name": "Jane Doe",
      "title": "Founder",
      "contact": {
        "email": "jane.doe@futureinnovations.com",
        "phone": "+44-20-9876",
        "address": {
          "street": "789 Future Blvd",
          "city": "Tech Haven",
          "state": "TX",
          "zip": "73301",
          "coordinates": {
            "lat": 30.2672,
            "lng": -97.7431
          }
        }
      },
      "projects": [
        {
          "projectId": "p-201",
          "name": "Smart Home Automation",
          "status": "completed",
          "budget": 2000000,
          "milestones": [
            {
              "milestoneId": "m-101",
              "description": "Market Research",
              "dueDate": "2024-05-15",
              "completed": true
            },
            {
              "milestoneId": "m-102",
              "description": "Prototype Deployment",
              "dueDate": "2024-12-01",
              "completed": true
            }
          ]
        }
      ]
    }
  ]
}
```

```
},
{
  "id": 2,
  "name": "Mark Twain",
  "title": "COO",
  "contact": {
    "email": "mark.twain@futureinnovations.com",
    "phone": "+44-20-5432",
    "address": {
      "street": "321 Innovation Road",
      "city": "Tech Haven",
      "state": "TX",
      "zip": "73301",
      "coordinates": {
        "lat": 30.2672,
        "lng": -97.7431
      }
    }
  },
  "projects": []
}
],
"departments": {
  "engineering": {
    "head": "Mark Twain",
    "teams": [
      {
        "teamName": "Cloud",
        "members": [
          "Liam",
          "Emma",
          "Olivia"
        ],
        "technologies": [
          "AWS",
          "Azure",
          "Google Cloud"
        ]
      },
      {
        "teamName": "IoT",
        "members": [
          "Noah",
          "Ava"
        ],
        "technologies": [
          "Raspberry Pi",
          "Arduino",
          "MQTT"
        ]
      }
    ]
  }
}
```

```
        ],
    },
    "hr": {
        "head": "Sophie Turner",
        "teams": []
    }
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
```

```
        }
    ]
}
]
}
```

15. Minimize JSON

REST API endpoint for minimizing JSON

15.1. CURL Request

```
$ curl 'http://localhost:8080/api/json/minify' -i -X POST \
-H 'Content-Type: application/json' \
-d '{
  "company": {
    "name": "Tech Solutions Inc.",
    "founded": 1998,
    "employees": [
      {
        "id": 1,
        "name": "Alice Smith",
        "title": "CEO",
        "contact": {
          "email": "alice.smith@techsolutions.com",
          "phone": "+1-555-1234",
          "address": {
            "street": "123 Tech Lane",
            "city": "Innovate City",
            "state": "CA",
            "zip": "90001",
            "coordinates": {
              "lat": 34.0522,
              "lng": -118.2437
            }
          }
        },
        "projects": [
          {
            "projectId": "p-101",
            "name": "AI Assistant",
            "status": "active",
            "budget": 1200000.5,
            "milestones": [
              {
                "milestoneId": "m-001",
                "description": "Initial Research",
              }
            ]
          }
        ]
      }
    ]
}
```

```
        "dueDate": "2025-06-30",
        "completed": true
    },
    {
        "milestoneId": "m-002",
        "description": "Prototype Development",
        "dueDate": "2025-09-15",
        "completed": false
    }
]
}
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": ["Charlie", "Dana", "Eli"],
                "technologies": ["Node.js", "Python", "PostgreSQL"]
            },
            {
                "teamName": "Frontend",
                "members": ["Fiona", "George"],
                "technologies": ["React", "Vue", "HTML5", "CSS3"]
            }
        ]
    },
    "hr": {
```

```
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
}
```

```
    }  
}  
'
```

15.2. HTTP Request

```
POST /api/json/minify HTTP/1.1  
Content-Type: application/json  
Content-Length: 3247  
Host: localhost:8080  
  
{  
  "company": {  
    "name": "Tech Solutions Inc.",  
    "founded": 1998,  
    "employees": [  
      {  
        "id": 1,  
        "name": "Alice Smith",  
        "title": "CEO",  
        "contact": {  
          "email": "alice.smith@techsolutions.com",  
          "phone": "+1-555-1234",  
          "address": {  
            "street": "123 Tech Lane",  
            "city": "Innovate City",  
            "state": "CA",  
            "zip": "90001",  
            "coordinates": {  
              "lat": 34.0522,  
              "lng": -118.2437  
            }  
          }  
        }  
      },  
      "projects": [  
        {  
          "projectId": "p-101",  
          "name": "AI Assistant",  
          "status": "active",  
          "budget": 1200000.5,  
          "milestones": [  
            {  
              "milestoneId": "m-001",  
              "description": "Initial Research",  
              "dueDate": "2025-06-30",  
              "completed": true  
            },  
            {  
              "milestoneId": "m-002",  
              "description": "Prototyping",  
              "dueDate": "2025-09-30",  
              "completed": false  
            }  
          ]  
        }  
      ]  
    ]  
  }  
}
```

```
        "description": "Prototype Development",
        "dueDate": "2025-09-15",
        "completed": false
    }
]
}
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": ["Charlie", "Dana", "Eli"],
                "technologies": ["Node.js", "Python", "PostgreSQL"]
            },
            {
                "teamName": "Frontend",
                "members": ["Fiona", "George"],
                "technologies": ["React", "Vue", "HTML5", "CSS3"]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
```

```
{  
    "location": "San Francisco",  
    "capacity": 50,  
    "openSince": "2010-05-15",  
    "facilities": {  
        "cafeteria": true,  
        "gym": false,  
        "parking": {  
            "available": true,  
            "spots": 20  
        }  
    }  
},  
{  
    "location": "New York",  
    "capacity": 30,  
    "openSince": "2015-08-20",  
    "facilities": {  
        "cafeteria": true,  
        "gym": true,  
        "parking": {  
            "available": false,  
            "spots": 0  
        }  
    }  
}  
],  
"financials": {  
    "fiscalYear": 2024,  
    "revenue": 5600000,  
    "expenses": 3200000,  
    "profit": 2400000,  
    "currency": "USD",  
    "investors": [  
        {  
            "name": "Capital Ventures",  
            "investment": 1000000,  
            "equity": 10  
        },  
        {  
            "name": "Tech Angels",  
            "investment": 500000,  
            "equity": 5  
        }  
    ]  
}  
}
```

15.3. Request Headers

Name	Description
Content-Type	The content type, which must be <code>application/json</code> .

15.4. Request Body

```
{
  "company": {
    "name": "Tech Solutions Inc.",
    "founded": 1998,
    "employees": [
      {
        "id": 1,
        "name": "Alice Smith",
        "title": "CEO",
        "contact": {
          "email": "alice.smith@techsolutions.com",
          "phone": "+1-555-1234",
          "address": {
            "street": "123 Tech Lane",
            "city": "Innovate City",
            "state": "CA",
            "zip": "90001",
            "coordinates": {
              "lat": 34.0522,
              "lng": -118.2437
            }
          }
        },
      ],
      "projects": [
        {
          "projectId": "p-101",
          "name": "AI Assistant",
          "status": "active",
          "budget": 1200000.5,
          "milestones": [
            {
              "milestoneId": "m-001",
              "description": "Initial Research",
              "dueDate": "2025-06-30",
              "completed": true
            },
            {
              "milestoneId": "m-002",
              "description": "Prototype Development",
              "dueDate": "2025-09-15",
            }
          ]
        }
      ]
    }
  }
}
```

```
        "completed": false
    }
]
}
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": ["Charlie", "Dana", "Eli"],
                "technologies": ["Node.js", "Python", "PostgreSQL"]
            },
            {
                "teamName": "Frontend",
                "members": ["Fiona", "George"],
                "technologies": ["React", "Vue", "HTML5", "CSS3"]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
{
    "location": "San Francisco",

```

```
        "capacity": 50,
        "openSince": "2010-05-15",
        "facilities": {
            "cafeteria": true,
            "gym": false,
            "parking": {
                "available": true,
                "spots": 20
            }
        }
    },
    {
        "location": "New York",
        "capacity": 30,
        "openSince": "2015-08-20",
        "facilities": {
            "cafeteria": true,
            "gym": true,
            "parking": {
                "available": false,
                "spots": 0
            }
        }
    }
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
}
}
```

15.5. HTTP Response

HTTP/1.1 200 OK

Content-Type: text/plain; charset=UTF-8

Content-Length: 1721

```
{"company": {"name": "TechSolutionsInc.", "founded": 1998, "employees": [{"id": 1, "name": "AliceSmith", "title": "CEO", "contact": {"email": "alice.smith@techsolutions.com", "phone": "+1-555-1234", "address": {"street": "123TechLane", "city": "InnovateCity", "state": "CA", "zip": "90001", "coordinates": {"lat": 34.0522, "lng": -118.2437}}, "projects": [{"projectId": "p-101", "name": "AIAssistant", "status": "active", "budget": 1200000.5, "milestones": [{"milestoneId": "m-001", "description": "InitialResearch", "dueDate": "2025-06-30", "completed": true}, {"milestoneId": "m-002", "description": "PrototypeDevelopment", "dueDate": "2025-09-15", "completed": false}]}], "id": 2, "name": "BobJohnson", "title": "CTO", "contact": {"email": "bob.johnson@techsolutions.com", "phone": "+1-555-5678", "address": {"street": "456DevAvenue", "city": "CodeTown", "state": "NY", "zip": "10001", "coordinates": {"lat": 40.7128, "lng": -74.006}}}, "departments": {"engineering": {"head": "BobJohnson", "teams": [{"teamName": "Backend", "members": ["Charlie", "Dana", "Eli"], "technologies": ["Node.js", "Python", "PostgreSQL"]}, {"teamName": "Frontend", "members": ["Fiona", "George"], "technologies": ["React", "Vue", "HTML5", "CSS3"]}], "hr": {"head": "GraceLee", "teams": []}, "offices": [{"location": "SanFrancisco", "capacity": 50, "openSince": "2010-05-15", "facilities": {"cafeteria": true, "gym": false, "parking": {"available": true, "spots": 20}}, {"location": "NewYork", "capacity": 30, "openSince": "2015-08-20", "facilities": {"cafeteria": true, "gym": true, "parking": {"available": false, "spots": 0}}}], "financials": {"fiscalYear": 2024, "revenue": 5600000, "expenses": 3200000, "profit": 240000, "currency": "USD", "investors": [{"name": "CapitalVentures", "investment": 1000000, "equity": 10}, {"name": "TechAngels", "investment": 500000, "equity": 5}]}}}
```

15.6. Response Body

```
{"company": {"name": "TechSolutionsInc.", "founded": 1998, "employees": [{"id": 1, "name": "AliceSmith", "title": "CEO", "contact": {"email": "alice.smith@techsolutions.com", "phone": "+1-555-1234", "address": {"street": "123TechLane", "city": "InnovateCity", "state": "CA", "zip": "90001", "coordinates": {"lat": 34.0522, "lng": -118.2437}}, "projects": [{"projectId": "p-101", "name": "AIAssistant", "status": "active", "budget": 1200000.5, "milestones": [{"milestoneId": "m-001", "description": "InitialResearch", "dueDate": "2025-06-30", "completed": true}, {"milestoneId": "m-002", "description": "PrototypeDevelopment", "dueDate": "2025-09-15", "completed": false}]}], "id": 2, "name": "BobJohnson", "title": "CTO", "contact": {"email": "bob.johnson@techsolutions.com", "phone": "+1-555-5678", "address": {"street": "456DevAvenue", "city": "CodeTown", "state": "NY", "zip": "10001", "coordinates": {"lat": 40.7128, "lng": -74.006}}}, "departments": {"engineering": {"head": "BobJohnson", "teams": [{"teamName": "Backend", "members": ["Charlie", "Dana", "Eli"], "technologies": ["Node.js", "Python", "PostgreSQL"]}, {"teamName": "Frontend", "members": ["Fiona", "George"], "technologies": ["React", "Vue", "HTML5", "CSS3"]}], "hr": {"head": "GraceLee", "teams": []}, "offices": [{"location": "SanFrancisco", "capacity": 50, "openSince": "2010-05-15", "facilities": {"cafeteria": true, "gym": false, "parking": {"available": true, "spots": 20}}, {"location": "NewYork", "capacity": 30, "openSince": "2015-08-20", "facilities": {"cafeteria": true, "gym": true, "parking": {"available": false, "spots": 0}}}], "financials": {"fiscalYear": 2024, "revenue": 5600000, "expenses": 3200000, "profit": 240000, "currency": "USD", "investors": [{"name": "CapitalVentures", "investment": 1000000, "equity": 10}, {"name": "TechAngels", "investment": 500000, "equity": 5}]}}}
```

```
hon", "PostgreSQL"]}, {"teamName": "Frontend", "members": ["Fiona", "George"], "technologies": ["React", "Vue", "HTML5", "CSS3"]}], "hr": {"head": "GraceLee", "teams": []}, "offices": [{"location": "SanFrancisco", "capacity": 50, "openSince": "2010-05-15", "facilities": {"cafeteria": true, "gym": false, "parking": {"available": true, "spots": 20}}, {"location": "NewYork", "capacity": 30, "openSince": "2015-08-20", "facilities": {"cafeteria": true, "gym": true, "parking": {"available": false, "spots": 0}}}, {"financials": {"fiscalYear": 2024, "revenue": 5600000, "expenses": 3200000, "profit": 2400000, "currency": "USD", "investors": [{"name": "CapitalVentures", "investment": 1000000, "equity": 10}, {"name": "TechAngels", "investment": 500000, "equity": 5}]}}}
```

16. Sort JSON

REST API endpoint for sorting JSON

16.1. CURL Request

```
$ curl 'http://localhost:8080/api/json/sort?sortByField=name' -i -X POST \
-H 'Content-Type: application/json' \
-d '{
  "companies": [
    {
      "name": "Tech Solutions Inc.",
      "founded": 1998,
      "employees": [
        {
          "id": 1,
          "name": "Alice Smith",
          "title": "CEO",
          "contact": {
            "email": "alice.smith@techsolutions.com",
            "phone": "+1-555-1234",
            "address": {
              "street": "123 Tech Lane",
              "city": "Innovate City",
              "state": "CA",
              "zip": "90001",
              "coordinates": {
                "lat": 34.0522,
                "lng": -118.2437
              }
            }
          }
        },
        {
          "name": "Bob Johnson"
        }
      ],
      "projects": [
        {
          "projectId": "p-101",
          "name": "AI Assistant",
          "status": "active",
          "budget": 1200000.5,
          "team": "Frontend"
        }
      ]
    }
  ]
}'
```

```
"milestones": [
    {
        "milestoneId": "m-001",
        "description": "Initial Research",
        "dueDate": "2025-06-30",
        "completed": true
    },
    {
        "milestoneId": "m-002",
        "description": "Prototype Development",
        "dueDate": "2025-09-15",
        "completed": false
    }
]
},
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",

```

```
        "Python",
        "PostgreSQL"
    ],
},
{
    "teamName": "Frontend",
    "members": [
        "Fiona",
        "George"
    ],
    "technologies": [
        "React",
        "Vue",
        "HTML5",
        "CSS3"
    ]
}
],
},
"hr": {
    "head": "Grace Lee",
    "teams": []
}
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
}
]
```

```
],
  "financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
      {
        "name": "Capital Ventures",
        "investment": 1000000,
        "equity": 10
      },
      {
        "name": "Tech Angels",
        "investment": 500000,
        "equity": 5
      }
    ]
  },
  {
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
      {
        "id": 1,
        "name": "Jane Doe",
        "title": "Founder",
        "contact": {
          "email": "jane.doe@futureinnovations.com",
          "phone": "+44-20-9876",
          "address": {
            "street": "789 Future Blvd",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
              "lat": 30.2672,
              "lng": -97.7431
            }
          }
        }
      ],
      "projects": [
        {
          "projectId": "p-201",
          "name": "Smart Home Automation",
          "status": "completed",
          "budget": 2000000,
          "milestones": [
            {

```

```
        "milestoneId": "m-101",
        "description": "Market Research",
        "dueDate": "2024-05-15",
        "completed": true
    },
    {
        "milestoneId": "m-102",
        "description": "Prototype Deployment",
        "dueDate": "2024-12-01",
        "completed": true
    }
]
}
],
{
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
                "lat": 30.2672,
                "lng": -97.7431
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "technologies": [
                    "AWS",
                    "Azure",
                    "Google Cloud"
                ]
            }
        ]
    }
}
```

```
        ],
    },
    {
        "teamName": "IoT",
        "members": [
            "Noah",
            "Ava"
        ],
        "technologies": [
            "Raspberry Pi",
            "Arduino",
            "MQTT"
        ]
    }
],
},
"hr": {
    "head": "Sophie Turner",
    "teams": []
},
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
},
],
"financials": {
    "fiscalYear": 2024,
```

```

    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
]
,

```

16.2. HTTP Request

```

POST /api/json/sort?sortByField=name HTTP/1.1
Content-Type: application/json
Content-Length: 8139
Host: localhost:8080

{
    "companies": [
        {
            "name": "Tech Solutions Inc.",
            "founded": 1998,
            "employees": [
                {
                    "id": 1,
                    "name": "Alice Smith",
                    "title": "CEO",
                    "contact": {
                        "email": "alice.smith@techsolutions.com",
                        "phone": "+1-555-1234",
                        "address": {
                            "street": "123 Tech Lane",
                            "city": "Innovate City",
                            "state": "CA",
                            "zip": "90001",
                            "coordinates": {
                                "lat": 34.0522,

```

```
        "lng": -118.2437
    }
}
},
"projects": [
{
    "projectId": "p-101",
    "name": "AI Assistant",
    "status": "active",
    "budget": 1200000.5,
    "milestones": [
        {
            "milestoneId": "m-001",
            "description": "Initial Research",
            "dueDate": "2025-06-30",
            "completed": true
        },
        {
            "milestoneId": "m-002",
            "description": "Prototype Development",
            "dueDate": "2025-09-15",
            "completed": false
        }
    ]
},
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.006
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "members": [
            {
                "name": "Sarah Chen",
                "role": "Software Engineer"
            },
            {
                "name": "David Lee",
                "role": "Hardware Engineer"
            },
            {
                "name": "Emily Kim",
                "role": "Machine Learning Specialist"
            }
        ]
    }
}
```

```
"teams": [
  {
    "teamName": "Backend",
    "members": [
      "Charlie",
      "Dana",
      "Eli"
    ],
    "technologies": [
      "Node.js",
      "Python",
      "PostgreSQL"
    ]
  },
  {
    "teamName": "Frontend",
    "members": [
      "Fiona",
      "George"
    ],
    "technologies": [
      "React",
      "Vue",
      "HTML5",
      "CSS3"
    ]
  }
],
"hr": {
  "head": "Grace Lee",
  "teams": []
},
"offices": [
  {
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
      "cafeteria": true,
      "gym": false,
      "parking": {
        "available": true,
        "spots": 20
      }
    }
  },
  {
    "location": "New York",
    "capacity": 30,
  }
]
```

```
"openSince": "2015-08-20",
"facilities": {
    "cafeteria": true,
    "gym": true,
    "parking": {
        "available": false,
        "spots": 0
    }
},
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "contact": {
                "email": "jane.doe@futureinnovations.com",
                "phone": "+44-20-9876",
                "address": {
                    "street": "789 Future Blvd",
                    "city": "Tech Haven",
                    "state": "TX",
                    "zip": "73301",
                    "coordinates": {
                        "lat": 30.2672,
                        "lng": -97.7431
                    }
                }
            }
        }
    ]
}
```

```

        }
    },
    "projects": [
        {
            "projectId": "p-201",
            "name": "Smart Home Automation",
            "status": "completed",
            "budget": 2000000,
            "milestones": [
                {
                    "milestoneId": "m-101",
                    "description": "Market Research",
                    "dueDate": "2024-05-15",
                    "completed": true
                },
                {
                    "milestoneId": "m-102",
                    "description": "Prototype Deployment",
                    "dueDate": "2024-12-01",
                    "completed": true
                }
            ]
        }
    ],
    {
        "id": 2,
        "name": "Mark Twain",
        "title": "COO",
        "contact": {
            "email": "mark.twain@futureinnovations.com",
            "phone": "+44-20-5432",
            "address": {
                "street": "321 Innovation Road",
                "city": "Tech Haven",
                "state": "TX",
                "zip": "73301",
                "coordinates": {
                    "lat": 30.2672,
                    "lng": -97.7431
                }
            }
        },
        "projects": []
    }
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {

```

```
"teamName": "Cloud",
"members": [
    "Liam",
    "Emma",
    "Olivia"
],
"technologies": [
    "AWS",
    "Azure",
    "Google Cloud"
]
},
{
    "teamName": "IoT",
    "members": [
        "Noah",
        "Ava"
    ],
    "technologies": [
        "Raspberry Pi",
        "Arduino",
        "MQTT"
    ]
}
],
"hr": {
    "head": "Sophie Turner",
    "teams": []
}
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
```

```

        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
        {
            "name": "Global Tech Fund",
            "investment": 2000000,
            "equity": 15
        },
        {
            "name": "Startup Angels",
            "investment": 750000,
            "equity": 7
        }
    ]
}
}

```

16.3. Request Headers

Name	Description
Content-Type	The content type, which must be <code>application/json</code> .

16.4. Request Body

```
{
    "companies": [
        {
            "name": "Tech Solutions Inc.",
            "founded": 1998,
            "employees": [
                {
                    "id": 1,

```

```
"name": "Alice Smith",
"title": "CEO",
"contact": {
    "email": "alice.smith@techsolutions.com",
    "phone": "+1-555-1234",
    "address": {
        "street": "123 Tech Lane",
        "city": "Innovate City",
        "state": "CA",
        "zip": "90001",
        "coordinates": {
            "lat": 34.0522,
            "lng": -118.2437
        }
    }
},
"projects": [
{
    "projectId": "p-101",
    "name": "AI Assistant",
    "status": "active",
    "budget": 1200000.5,
    "milestones": [
        {
            "milestoneId": "m-001",
            "description": "Initial Research",
            "dueDate": "2025-06-30",
            "completed": true
        },
        {
            "milestoneId": "m-002",
            "description": "Prototype Development",
            "dueDate": "2025-09-15",
            "completed": false
        }
    ]
},
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.4128
            }
        }
    }
}
```

```
        "coordinates": {
            "lat": 40.7128,
            "lng": -74.006
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            },
            {
                "teamName": "Frontend",
                "members": [
                    "Fiona",
                    "George"
                ],
                "technologies": [
                    "React",
                    "Vue",
                    "HTML5",
                    "CSS3"
                ]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "closedUntil": null
}
]
```

```
"facilities": {
    "cafeteria": true,
    "gym": false,
    "parking": {
        "available": true,
        "spots": 20
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
},
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
},
{
    "name": "Future Innovations Ltd.",
    "founded": 2005,
    "employees": [
        {
            "id": 1,
            "name": "Jane Doe",
            "title": "Founder",
            "role": "CEO"
        }
    ]
}
```

```

"contact": {
    "email": "jane.doe@futureinnovations.com",
    "phone": "+44-20-9876",
    "address": {
        "street": "789 Future Blvd",
        "city": "Tech Haven",
        "state": "TX",
        "zip": "73301",
        "coordinates": {
            "lat": 30.2672,
            "lng": -97.7431
        }
    }
},
"projects": [
{
    "projectId": "p-201",
    "name": "Smart Home Automation",
    "status": "completed",
    "budget": 2000000,
    "milestones": [
        {
            "milestoneId": "m-101",
            "description": "Market Research",
            "dueDate": "2024-05-15",
            "completed": true
        },
        {
            "milestoneId": "m-102",
            "description": "Prototype Deployment",
            "dueDate": "2024-12-01",
            "completed": true
        }
    ]
},
{
    "id": 2,
    "name": "Mark Twain",
    "title": "COO",
    "contact": {
        "email": "mark.twain@futureinnovations.com",
        "phone": "+44-20-5432",
        "address": {
            "street": "321 Innovation Road",
            "city": "Tech Haven",
            "state": "TX",
            "zip": "73301",
            "coordinates": {
                "lat": 30.2672,
                "lng": -97.7431
            }
        }
    }
}
]

```

```
        "lng": -97.7431
    }
}
},
"projects": []
}
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "technologies": [
                    "AWS",
                    "Azure",
                    "Google Cloud"
                ]
            },
            {
                "teamName": "IoT",
                "members": [
                    "Noah",
                    "Ava"
                ],
                "technologies": [
                    "Raspberry Pi",
                    "Arduino",
                    "MQTT"
                ]
            }
        ]
    },
    "hr": {
        "head": "Sophie Turner",
        "teams": []
    }
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "pool": false
    }
}
]
```

```
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
},
{
    "financials": {
        "fiscalYear": 2024,
        "revenue": 8000000,
        "expenses": 4500000,
        "profit": 3500000,
        "currency": "GBP",
        "investors": [
            {
                "name": "Global Tech Fund",
                "investment": 2000000,
                "equity": 15
            },
            {
                "name": "Startup Angels",
                "investment": 750000,
                "equity": 7
            }
        ]
    }
}
]
```

16.5. HTTP Response

```
HTTP/1.1 200 OK
Content-Type: text/plain; charset=UTF-8
Content-Length: 7531
```

```
{
  "companies": [
    {
      "name": "Future Innovations Ltd.",
      "founded": 2005,
      "employees": [
        {
          "id": 1,
          "name": "Jane Doe",
          "title": "Founder",
          "contact": {
            "email": "jane.doe@futureinnovations.com",
            "phone": "+44-20-9876",
            "address": {
              "street": "789 Future Blvd",
              "city": "Tech Haven",
              "state": "TX",
              "zip": "73301",
              "coordinates": {
                "lat": 30.2672,
                "lng": -97.7431
              }
            }
          }
        },
        {
          "projectId": "p-201",
          "name": "Smart Home Automation",
          "status": "completed",
          "budget": 2000000,
          "milestones": [
            {
              "milestoneId": "m-101",
              "description": "Market Research",
              "dueDate": "2024-05-15",
              "completed": true
            },
            {
              "milestoneId": "m-102",
              "description": "Prototype Deployment",
              "dueDate": "2024-12-01",
              "completed": true
            }
          ]
        }
      ],
      {
        "id": 2,
        "name": "Mark Twain",
        "title": "COO",
      }
    ]
  ]
}
```

```
"contact": {
    "email": "mark.twain@futureinnovations.com",
    "phone": "+44-20-5432",
    "address": {
        "street": "321 Innovation Road",
        "city": "Tech Haven",
        "state": "TX",
        "zip": "73301",
        "coordinates": {
            "lat": 30.2672,
            "lng": -97.7431
        }
    }
},
"projects": []
}
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "technologies": [
                    "AWS",
                    "Azure",
                    "Google Cloud"
                ]
            },
            {
                "teamName": "IoT",
                "members": [
                    "Noah",
                    "Ava"
                ],
                "technologies": [
                    "Raspberry Pi",
                    "Arduino",
                    "MQTT"
                ]
            }
        ]
    },
    "hr": {
        "head": "Sophie Turner",
        "teams": []
    }
}
```

```
        }
    },
    "offices": [
        {
            "location": "Austin",
            "capacity": 40,
            "openSince": "2018-03-10",
            "facilities": {
                "cafeteria": true,
                "gym": true,
                "parking": {
                    "available": true,
                    "spots": 25
                }
            }
        },
        {
            "location": "London",
            "capacity": 20,
            "openSince": "2021-11-05",
            "facilities": {
                "cafeteria": true,
                "gym": false,
                "parking": {
                    "available": true,
                    "spots": 10
                }
            }
        }
    ],
    "financials": {
        "fiscalYear": 2024,
        "revenue": 8000000,
        "expenses": 4500000,
        "profit": 3500000,
        "currency": "GBP",
        "investors": [
            {
                "name": "Global Tech Fund",
                "investment": 2000000,
                "equity": 15
            },
            {
                "name": "Startup Angels",
                "investment": 750000,
                "equity": 7
            }
        ]
    },
    {

```

```
"name": "Tech Solutions Inc.",
"founded": 1998,
"employees": [
  {
    "id": 1,
    "name": "Alice Smith",
    "title": "CEO",
    "contact": {
      "email": "alice.smith@techsolutions.com",
      "phone": "+1-555-1234",
      "address": {
        "street": "123 Tech Lane",
        "city": "Innovate City",
        "state": "CA",
        "zip": "90001",
        "coordinates": {
          "lat": 34.0522,
          "lng": -118.2437
        }
      }
    },
    "projects": [
      {
        "projectId": "p-101",
        "name": "AI Assistant",
        "status": "active",
        "budget": 1200000.5,
        "milestones": [
          {
            "milestoneId": "m-001",
            "description": "Initial Research",
            "dueDate": "2025-06-30",
            "completed": true
          },
          {
            "milestoneId": "m-002",
            "description": "Prototype Development",
            "dueDate": "2025-09-15",
            "completed": false
          }
        ]
      }
    ],
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
      "email": "bob.johnson@techsolutions.com",
      "phone": "+1-555-5678",
    }
  }
]
```

```
"address": {
    "street": "456 Dev Avenue",
    "city": "Code Town",
    "state": "NY",
    "zip": "10001",
    "coordinates": {
        "lat": 40.7128,
        "lng": -74.006
    }
},
"projects": []
},
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            },
            {
                "teamName": "Frontend",
                "members": [
                    "Fiona",
                    "George"
                ],
                "technologies": [
                    "React",
                    "Vue",
                    "HTML5",
                    "CSS3"
                ]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
```

```
"offices": [
    {
        "location": "San Francisco",
        "capacity": 50,
        "openSince": "2010-05-15",
        "facilities": {
            "cafeteria": true,
            "gym": false,
            "parking": {
                "available": true,
                "spots": 20
            }
        }
    },
    {
        "location": "New York",
        "capacity": 30,
        "openSince": "2015-08-20",
        "facilities": {
            "cafeteria": true,
            "gym": true,
            "parking": {
                "available": false,
                "spots": 0
            }
        }
    }
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
}
]
```

16.6. Response Body

```
{  
  "companies": [  
    {  
      "name": "Future Innovations Ltd.",  
      "founded": 2005,  
      "employees": [  
        {  
          "id": 1,  
          "name": "Jane Doe",  
          "title": "Founder",  
          "contact": {  
            "email": "jane.doe@futureinnovations.com",  
            "phone": "+44-20-9876",  
            "address": {  
              "street": "789 Future Blvd",  
              "city": "Tech Haven",  
              "state": "TX",  
              "zip": "73301",  
              "coordinates": {  
                "lat": 30.2672,  
                "lng": -97.7431  
              }  
            }  
          }  
        },  
        {  
          "name": "Smart Home Automation",  
          "status": "completed",  
          "budget": 2000000,  
          "milestones": [  
            {  
              "milestoneId": "m-101",  
              "description": "Market Research",  
              "dueDate": "2024-05-15",  
              "completed": true  
            },  
            {  
              "milestoneId": "m-102",  
              "description": "Prototype Deployment",  
              "dueDate": "2024-12-01",  
              "completed": true  
            }  
          ]  
        }  
      ],  
      "projects": [  
        {  
          "projectId": "p-201",  
          "name": "Smart Home Automation",  
          "status": "completed",  
          "budget": 2000000,  
          "milestones": [  
            {  
              "milestoneId": "m-101",  
              "description": "Market Research",  
              "dueDate": "2024-05-15",  
              "completed": true  
            },  
            {  
              "milestoneId": "m-102",  
              "description": "Prototype Deployment",  
              "dueDate": "2024-12-01",  
              "completed": true  
            }  
          ]  
        }  
      ]  
    }  
  ]  
}
```

```
        "id": 2,
        "name": "Mark Twain",
        "title": "COO",
        "contact": {
            "email": "mark.twain@futureinnovations.com",
            "phone": "+44-20-5432",
            "address": {
                "street": "321 Innovation Road",
                "city": "Tech Haven",
                "state": "TX",
                "zip": "73301",
                "coordinates": {
                    "lat": 30.2672,
                    "lng": -97.7431
                }
            }
        },
        "projects": []
    }
],
"departments": {
    "engineering": {
        "head": "Mark Twain",
        "teams": [
            {
                "teamName": "Cloud",
                "members": [
                    "Liam",
                    "Emma",
                    "Olivia"
                ],
                "technologies": [
                    "AWS",
                    "Azure",
                    "Google Cloud"
                ]
            },
            {
                "teamName": "IoT",
                "members": [
                    "Noah",
                    "Ava"
                ],
                "technologies": [
                    "Raspberry Pi",
                    "Arduino",
                    "MQTT"
                ]
            }
        ]
    }
},
```

```
"hr": {
    "head": "Sophie Turner",
    "teams": []
},
"offices": [
{
    "location": "Austin",
    "capacity": 40,
    "openSince": "2018-03-10",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": true,
            "spots": 25
        }
    }
},
{
    "location": "London",
    "capacity": 20,
    "openSince": "2021-11-05",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 10
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 8000000,
    "expenses": 4500000,
    "profit": 3500000,
    "currency": "GBP",
    "investors": [
{
        "name": "Global Tech Fund",
        "investment": 2000000,
        "equity": 15
},
{
        "name": "Startup Angels",
        "investment": 750000,
        "equity": 7
}
]
}
```

```
        }
    },
{
  "name": "Tech Solutions Inc.",
  "founded": 1998,
  "employees": [
    {
      "id": 1,
      "name": "Alice Smith",
      "title": "CEO",
      "contact": {
        "email": "alice.smith@techsolutions.com",
        "phone": "+1-555-1234",
        "address": {
          "street": "123 Tech Lane",
          "city": "Innovate City",
          "state": "CA",
          "zip": "90001",
          "coordinates": {
            "lat": 34.0522,
            "lng": -118.2437
          }
        }
      }
    },
    "projects": [
      {
        "projectId": "p-101",
        "name": "AI Assistant",
        "status": "active",
        "budget": 1200000.5,
        "milestones": [
          {
            "milestoneId": "m-001",
            "description": "Initial Research",
            "dueDate": "2025-06-30",
            "completed": true
          },
          {
            "milestoneId": "m-002",
            "description": "Prototype Development",
            "dueDate": "2025-09-15",
            "completed": false
          }
        ]
      }
    ],
    {
      "id": 2,
      "name": "Bob Johnson",
      "title": "CTO",
    }
  ]
},
```

```
"contact": {
    "email": "bob.johnson@techsolutions.com",
    "phone": "+1-555-5678",
    "address": {
        "street": "456 Dev Avenue",
        "city": "Code Town",
        "state": "NY",
        "zip": "10001",
        "coordinates": {
            "lat": 40.7128,
            "lng": -74.006
        }
    }
},
"projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": [
                    "Charlie",
                    "Dana",
                    "Eli"
                ],
                "technologies": [
                    "Node.js",
                    "Python",
                    "PostgreSQL"
                ]
            },
            {
                "teamName": "Frontend",
                "members": [
                    "Fiona",
                    "George"
                ],
                "technologies": [
                    "React",
                    "Vue",
                    "HTML5",
                    "CSS3"
                ]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",

```

```
        "teams": []
    }
},
"offices": [
{
    "location": "San Francisco",
    "capacity": 50,
    "openSince": "2010-05-15",
    "facilities": {
        "cafeteria": true,
        "gym": false,
        "parking": {
            "available": true,
            "spots": 20
        }
    }
},
{
    "location": "New York",
    "capacity": 30,
    "openSince": "2015-08-20",
    "facilities": {
        "cafeteria": true,
        "gym": true,
        "parking": {
            "available": false,
            "spots": 0
        }
    }
}
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
}
}
```

```
]  
}
```

17. Validate JSON

REST API endpoint for validating JSON

17.1. CURL Request

```
$ curl 'http://localhost:8080/api/json/validate' -i -X POST \  
-H 'Content-Type: application/json' \  
-d ' {  
    "company": {  
        "name": "Tech Solutions Inc.",  
        "founded": 1998,  
        "employees": [  
            {  
                "id": 1,  
                "name": "Alice Smith",  
                "title": "CEO",  
                "contact": {  
                    "email": "alice.smith@techsolutions.com",  
                    "phone": "+1-555-1234",  
                    "address": {  
                        "street": "123 Tech Lane",  
                        "city": "Innovate City",  
                        "state": "CA",  
                        "zip": "90001",  
                        "coordinates": {  
                            "lat": 34.0522,  
                            "lng": -118.2437  
                        }  
                    }  
                }  
            },  
            "projects": [  
                {  
                    "projectId": "p-101",  
                    "name": "AI Assistant",  
                    "status": "active",  
                    "budget": 1200000.50,  
                    "milestones": [  
                        {  
                            "milestoneId": "m-001",  
                            "description": "Initial Research",  
                            "dueDate": "2025-06-30",  
                            "completed": true  
                        },  
                        {  
                            "milestoneId": "m-002",  
                            "description": "Prototyping",  
                            "dueDate": "2025-09-30",  
                            "completed": false  
                        }  
                    ]  
                }  
            ]  
        ]  
    }  
}'
```

```

        "milestoneId": "m-002",
        "description": "Prototype Development",
        "dueDate": "2025-09-15",
        "completed": false
    }
]
}
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.0060
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": ["Charlie", "Dana", "Eli"],
                "technologies": ["Node.js", "Python", "PostgreSQL"]
            },
            {
                "teamName": "Frontend",
                "members": ["Fiona", "George"],
                "technologies": ["React", "Vue", "HTML5", "CSS3"]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},

```

```
"offices": [
    {
        "location": "San Francisco",
        "capacity": 50,
        "openSince": "2010-05-15",
        "facilities": {
            "cafeteria": true,
            "gym": false,
            "parking": {
                "available": true,
                "spots": 20
            }
        }
    },
    {
        "location": "New York",
        "capacity": 30,
        "openSince": "2015-08-20",
        "facilities": {
            "cafeteria": true,
            "gym": true,
            "parking": {
                "available": false,
                "spots": 0
            }
        }
    }
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
}
```

17.2. HTTP Request

```
POST /api/json/validate HTTP/1.1
Content-Type: application/json
Content-Length: 4482
Host: localhost:8080

{
  "company": {
    "name": "Tech Solutions Inc.",
    "founded": 1998,
    "employees": [
      {
        "id": 1,
        "name": "Alice Smith",
        "title": "CEO",
        "contact": {
          "email": "alice.smith@techsolutions.com",
          "phone": "+1-555-1234",
          "address": {
            "street": "123 Tech Lane",
            "city": "Innovate City",
            "state": "CA",
            "zip": "90001",
            "coordinates": {
              "lat": 34.0522,
              "lng": -118.2437
            }
          }
        },
      ],
      "projects": [
        {
          "projectId": "p-101",
          "name": "AI Assistant",
          "status": "active",
          "budget": 1200000.50,
          "milestones": [
            {
              "milestoneId": "m-001",
              "description": "Initial Research",
              "dueDate": "2025-06-30",
              "completed": true
            },
            {
              "milestoneId": "m-002",
              "description": "Prototype Development",
              "dueDate": "2025-09-15",
            }
          ]
        }
      ]
    }
  }
}
```

```

        "completed": false
    }
]
}
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.0060
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": ["Charlie", "Dana", "Eli"],
                "technologies": ["Node.js", "Python", "PostgreSQL"]
            },
            {
                "teamName": "Frontend",
                "members": ["Fiona", "George"],
                "technologies": ["React", "Vue", "HTML5", "CSS3"]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
{
    "location": "San Francisco",

```

```
        "capacity": 50,
        "openSince": "2010-05-15",
        "facilities": {
            "cafeteria": true,
            "gym": false,
            "parking": {
                "available": true,
                "spots": 20
            }
        }
    },
    {
        "location": "New York",
        "capacity": 30,
        "openSince": "2015-08-20",
        "facilities": {
            "cafeteria": true,
            "gym": true,
            "parking": {
                "available": false,
                "spots": 0
            }
        }
    }
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
}
}
```

17.3. Request Headers

Name	Description
Content-Type	The content type, which must be application/json.

17.4. Request Body

```
{
  "company": {
    "name": "Tech Solutions Inc.",
    "founded": 1998,
    "employees": [
      {
        "id": 1,
        "name": "Alice Smith",
        "title": "CEO",
        "contact": {
          "email": "alice.smith@techsolutions.com",
          "phone": "+1-555-1234",
          "address": {
            "street": "123 Tech Lane",
            "city": "Innovate City",
            "state": "CA",
            "zip": "90001",
            "coordinates": {
              "lat": 34.0522,
              "lng": -118.2437
            }
          }
        },
      ],
      "projects": [
        {
          "projectId": "p-101",
          "name": "AI Assistant",
          "status": "active",
          "budget": 1200000.50,
          "milestones": [
            {
              "milestoneId": "m-001",
              "description": "Initial Research",
              "dueDate": "2025-06-30",
              "completed": true
            },
            {
              "milestoneId": "m-002",
              "description": "Prototype Development",
              "dueDate": "2025-09-15",
            }
          ]
        }
      ]
    }
  }
}
```

```

        "completed": false
    }
]
}
],
{
    "id": 2,
    "name": "Bob Johnson",
    "title": "CTO",
    "contact": {
        "email": "bob.johnson@techsolutions.com",
        "phone": "+1-555-5678",
        "address": {
            "street": "456 Dev Avenue",
            "city": "Code Town",
            "state": "NY",
            "zip": "10001",
            "coordinates": {
                "lat": 40.7128,
                "lng": -74.0060
            }
        }
    },
    "projects": []
}
],
"departments": {
    "engineering": {
        "head": "Bob Johnson",
        "teams": [
            {
                "teamName": "Backend",
                "members": ["Charlie", "Dana", "Eli"],
                "technologies": ["Node.js", "Python", "PostgreSQL"]
            },
            {
                "teamName": "Frontend",
                "members": ["Fiona", "George"],
                "technologies": ["React", "Vue", "HTML5", "CSS3"]
            }
        ]
    },
    "hr": {
        "head": "Grace Lee",
        "teams": []
    }
},
"offices": [
{
    "location": "San Francisco",

```

```
        "capacity": 50,
        "openSince": "2010-05-15",
        "facilities": {
            "cafeteria": true,
            "gym": false,
            "parking": {
                "available": true,
                "spots": 20
            }
        }
    },
    {
        "location": "New York",
        "capacity": 30,
        "openSince": "2015-08-20",
        "facilities": {
            "cafeteria": true,
            "gym": true,
            "parking": {
                "available": false,
                "spots": 0
            }
        }
    }
],
"financials": {
    "fiscalYear": 2024,
    "revenue": 5600000,
    "expenses": 3200000,
    "profit": 2400000,
    "currency": "USD",
    "investors": [
        {
            "name": "Capital Ventures",
            "investment": 1000000,
            "equity": 10
        },
        {
            "name": "Tech Angels",
            "investment": 500000,
            "equity": 5
        }
    ]
}
}
```

17.5. HTTP Response

```
HTTP/1.1 200 OK
Content-Type: application/json
Content-Length: 4
```

```
true
```

17.6. Response Body

```
true
```