

# The Merit Aktiva API allows 3rd party developers to expand and build on the Merit Aktiva platform.

The Merit Aktiva API is a RESTful API that is used to access Merit Aktiva companies using HTTP and JSON. The API makes it easy to create web, mobile and desktop applications that integrate with your account.

Some potential application ideas:

- Manage customer and vendor databases.
- Manage sales-side and purchase-side transactions.
- Data analysis
- Custom integrations for data import and export

## Overview

### Service URL

The Merit Aktiva API has a single point of entry:

<https://aktiva.merit.ee/api/v1/>

Please note the use of https:// in the URL above. *All Merit Aktiva API communication is encrypted over HTTPS*. Any non-secure requests are automatically rejected.

### Request Limits

There are no limit on the number of API requests per day. However, requests will be rate-limited if too many calls are made within a short period of time. Additionally, a maximum of 100 results will be returned for growing list methods.

### Representation Formats

All Merit Aktiva API requests are composed of JSON and delivered as an HTTP POST request to the endpoint URL.

- All JSON should be UTF-8 encoded.
- Date and time values are of the form yyyy-MMddHHmmss.
- Dot (.) is used as a decimal separator.

- Booleans are either “true” or “false”, lowercase (not 1 or 0).
- Empty values, represented as null should be lowercase.
- Fields denoting percentages are passed as whole values, not decimals (e.g. 5 for five percent).

### *Successful responses*

Successful response is represented as JSON with response code 200. In many cases, when needed and possible, response will also include details of fulfilled requests (like added invoice id or customer id).

### *Unsuccessful responses*

In the case of a failure response, the response body will contain the error code and one or more error messages. The error codes can either be 400 or 401.

If the error code is 400, the data sent to the API is not appropriate. Message tag will give you more info about what went wrong.

In case of the error 401, either ApiId or the signature were incorrect. It could also be that someone has meanwhile changed the API ID and Api Key for security reasons thus making the “old” IDs and Keys obsolete.

## Authentication

For your company, you'll be given a unique Api ID and Api Key. The admin user can generate and reset API ID and Key on the My Account page (Program Settings).

*Keep your Api ID and Api Key secret.* They should be guarded just as you would your regular account password. If you feel your ID and Key has been compromised, you can reset it by clicking the “Generate” button on the “My Account” page.

For every API request you make, you'll need to include ApiID, timestamp and signature as request parameters.

Signature is in Base64 format and is calculated using your ApiKey with HMAC-SHA-256, based on the ApiID+timestamp+RequestJSON.

## Creating Sales Invoices

### *Service URL:*

<https://aktiva.merit.ee/api/v1/sendinvoice>

## *Elements for Adding Invoices:*

| Customer Object |             |  |
|-----------------|-------------|--|
| Field Name      | Type        | Comment  |
| Id              | Guid        | If filled and customer is found in the database then following fields are not important. If not found, the customer is added using the following fields. |
| Name            | Str 150     | Required when customer is added  |
| RegNo           | Str 30      |  |
| NotTDCustomer   | Bool        | Required when customer is added. True for physical persons and foreign companies.  |
| VatRegNo        | Str 30      |  |
| CurrencyCode    | Str 4       |  |
| PaymentDeadLine | Int         | If missing then taken from default settings.   |
| OverDueCharge   | Decimal 5.2 | If missing then taken from default settings.   |
| Address         | Str 100     |  |
| City            | Str 100     |  |
| Country         | Str 100     |  |
| PostalCode      | Str 15      |  |
| CountryCode     | Str 2       | Required when adding   |
| PhoneNo         | Str 50      |  |
| PhoneNo2        | Str 50      |  |
| HomePage        | Str 80      |  |
| Email           | Str 80      |  |

| Article (Item) Object |         |   |
|-----------------------|---------|---|
| Field Name            | Type    | Comment   |
| Code                  | Str 20  | Required  |
| Description           | Str 100 | Required  |
| Type                  | Int     | 1 = stock item, 2 = service, 3 = item.<br>Required. |
| UOMName               | Str 64  | Name for the unit                                   |

| VAT Object |              |                                       |
|------------|--------------|---------------------------------------|
| Field Name | Type         | Comment                               |
| TaxCode    | Str 16       | Must be found in the company database |
| Amount     | Decimal 18.2 |                                       |

| Payment Object |              |  |
|----------------|--------------|--|
| Field Name     | Type         | Comment  |
| PaymentMethod  | Str 150      | Name of the payment method. Must be found in the company database. |
| PaidAmount     | Decimal 18.2 |  |
| PaymDate       | Date         |  |

| InvoiceRow Object |                |   |
|-------------------|----------------|---|
| Field Name        | Type           | Comment   |
| Item              | Article Object |   |
| Quantity          | Decimal 18.3   |   |
| Price             | Decimal 18.7   |   |
| DiscountPct       | Decimal 18.2   |   |
| DiscountAmount    | Decimal 18.2   |   |
| TaxCode           | Str 16         | Must be found in the company database   |
| LocationCode      | Str 20         | Used for stock items and multiple stocks. If used then must be found in the company database. |

| Invoice Object |                 |         |
|----------------|-----------------|---------|
| Field Name     | Type            | Comment |
| Customer       | Customer Object |         |
| DocDate        | Date            |         |
| DueDate        | Date            |         |

|                |                             |   |
|----------------|-----------------------------|---|
| InvoiceNo      | Str 35                      |   |
| RefNo          | Str 36                      |   |
| CurrencyCode   | Str 4                       |   |
| DepartmentCode | Str 20                      | If used then must be found in the company database. |
| ProjectCode    | Str 20                      | If used then must be found in the company database. |
| InvoiceRow     | Array of InvoiceRow objects |   |
| TaxAmount      | Array of VAT objects        |   |
| RoundingAmount | Decimal 18.2                |   |
| TotalAmount    | Decimal 18.2                | Amount without VAT                                  |
| Payment        | Payment object              |   |
| Hcomment       | String 4K                   | Comment before invoice rows                         |
| Fcomment       | String 4K                   | Comment at the invoice footer                       |

### *Sample for Adding the Invoices:*

ApiId: FC39B372-6659-41CD-9BE1-4EB16F190424  
 ApiKey: LCxYRLnp7H4t2ZV9UJEH9SJVi0ZzyTHpmshLecCQDbE=  
 Timestamp: 20161102123901  
 JSON: {"Customer":{"Id":"43709319-f332-4791-a847-d7c20672d680","Name":"aktsiaselts Merit Tarkvara","RegNo":"10254977","NotTDCustomer":false,"VatRegNo":"EE100388907","CurrencyCode":"EUR","PaymentDeadLine":7,"OverDueCharge":0.05,"RefNoBase":null,"Address":"Pärna 1","CountryCode":"EE","County":null,"City":"Põltsamaa","PostalCode":"48105","PhoneNo":null,"PhoneNo2":null,"HomePage":null,"Email":null},"DocDate":"\Date(1474588800000)\/", "DueDate":"\Date(1475193600000)\/", "InvoiceNo": "1121", "RefNo": "11219", "CurrencyCode": "EUR", "DepartmentCode": null, "ProjectCode": null, "InvoiceRow": [{"Item": {"Code": "010462", "Description": "Omniva (Post24, Estonian Post) AIO extension for Wordpress WooCommerce", "Type": 1, "UOMName": "kg"}, "Quantity": 20.000, "Price": 6.0000000, "DiscountPct": 0.00, "DiscountAmount": 0.00, "TaxCode": "20%", "LocationCode": "1"}], "TotalAmount": 120.00, "RoundingAmount": 0.00, "TaxAmount": [{"TaxCode": "20%", "Amount": 20.00}], "Payment": null, "HComment": null, "FComment": null}

Using the above, the signature should be  
 1qmi5AtN3Wjiyk894Zly6Pae2G6iZEGsvl9LjoNuYfQ=

And to post the invoice, the JSON should be posted using the following URL and parameters:

<https://aktiva.merit.ee/api/v1/sendinvoice>?ApiId= FC39B372-6659-41CD-9BE1-4EB16F190424&timestamp= 20161102123901&signature= WHSMOHozMeAmiZuczceq5R/MLlNhaJhrwol68G/mR14=

Response to the successful request is something like this:

```
{"CustomerId":"665f01a4-357a-4a6b-a565-  
2f17e6e1da13","InvoiceId":"5f91033c-9d0f-416e-a079-  
d3c892b8c317","InvoiceNo":"1121","RefNo":"11219"}
```