

# BitRec REST services API documentation

v1.2

## *Terms and Descriptions*

- **item\_id** – the id of an item as identified in your system. One id corresponds to a real product such as pizza margherita at ItalPizza restaurant. Here ItalPizza is a business unit as described bellow. If ItalPizza belongs to a chain and the chain has another restaurant called NapoliPizza, the externalItemId for pizza margherita should better be the same in both restaurants. This is wanted but not required.
- **customer\_id** – the id of a customer as identified in your system. It should be unique per user. When requesting recommendations this is used to identify the user and his tastes in the system.
- **bu\_id** – the id of a business unit such as restaurant or shop. Business unit has its own menu, assortment of goods that are available for the user. For example ItalPizza can have diavola pizza which is not available in NapoliPizza restaurant of the same chain.
- **username** – given username to access our services.
- **password** – given password for your username.
- **c\_path** – context path of your web application.

## For data upload

The main API call for uploading the data is the upload carts data. Example of cart data is shown in the table.

Upload carts data		
URL	https://<username>:<password>@<HOST>/<c_path>/data_upload/carts	
Method	POST (Content-type: application/json)	
URI parameters	none	
POST body parameters	List of UploadCart objects in JSON format	
POST example	<p><i>URL:</i> <i>https://usr:psw@&lt;HOST&gt;/company-services/data_upload/carts</i></p> <p><i>POST BODY:</i> <i>[{"customerId": "14", "buId": "ItalPizza", "orderTimestamp": "2013-07-10T12:20:00.000", "items": [{"itemId": "pizza margherita", "price": 12.15, "quantity": 2}, {"itemId": "pizza diavola", "price": 15.50, "quantity": 1}, {"itemId": "pizza pepperoni", "price": 14.00, "quantity": 3}], ...]</i></p>	
Comments	<ul style="list-style-type: none"><li>• If customerId, buId or any of itemId are found in our system, they will be automatically created without further details. These details can be later updated using appropriate APIs. If orderTimestamp is missing, current time will be used.</li><li>• Repeatedly posting the same data will result as a new carts/checks in the DB.</li></ul>	
Response	Code	Description
	204	Request was successfully completed
	400	Bad request – mostly due wrong sending parameters structure
	500	Internal server error

Upload/Update items data		
URL	https://<username>:<password>@<HOST>/<c_path>/data_upload/items	
Method	POST (Content-type: application/json)	
URI parameters	None	
POST body parameters	List of Item objects in JSON format	
POST example	<p><i>URL:</i>  <i>https://usr:psw@&lt;HOST&gt;/company-services/data_upload/items</i></p> <p><i>POST BODY:</i>  <i>[{"itemId" : "pizza margherita", "price": 12.4, "category1Id": "1544 489 1444", "category2Id": "789 4555 4788", "name": "pizza margherita", "description" : "pizza topped with a tomato sauce and cheese", "deliveryTime": "1", "discount": "0.0"},...]</i></p>	
Comments	<ul style="list-style-type: none"> <li>• Required: itemId or 400 will be returned.</li> <li>• Repeatedly posting data with the same itemId will update the entry. Therefore, if you first posted the data using carts interface, you can update item information using this API call.</li> </ul>	
Response	Code	Description
	204	Request was successfully completed
	400	Bad request – mostly due wrong sending parameters structure
	500	Internal server error

Upload/Update customers data		
URL	https://<username>:<password>@<HOST>/<c_path>/data_upload/customers	
Method	POST (Content-type: application/json)	
URI parameters	none	
POST body parameters	List of Customer objects in JSON format	
POST example	<p><i>URL:</i>  https://usr:psw@&lt;HOST&gt;/company-services/data_upload/customers</p> <p><i>POST BODY:</i>  [{"customerId": "14", "gender": "male", "birth": "1982-02-20", "location": "Vilnius"},...]</p>	
Comments	<ul style="list-style-type: none"> <li>• Required customerId or 400 will be returned.</li> <li>• customerId can not have "." (dot) in the string and better to be alphanumerical</li> <li>• Repeatedly posting the data with the same customerId will update the entry.</li> </ul>	
Response	Code	Description
	204	Request was successfully completed
	400	Bad request – mostly due wrong sending parameters structure
	500	Internal server error

Upload/Update business unit data									
URL	https://<username>:<password>@<HOST>/<c_path>/data_upload/business_units								
Method	POST (Content-type: application/json)								
URI parameters	none								
POST body parameters	List of business units objects in JSON format								
POST example	<p><i>URL:</i>  https://usr:psw@&lt;HOST&gt;/company-services/data_upload/businessunits</p> <p><i>POST BODY:</i>  [{"buId":"ItalPizza", "itemId":"pizza margherita", "active":true}, {"buId":"ItalPizza", "itemId":"pizza diavola", "active":true}, ...]</p>								
Comments	<ul style="list-style-type: none"> <li>• Used to provide menu for each business unit. If this is not called, collected data from the carts will be used to identify which units has which items.</li> <li>• Required externalBusinessUnitId or 400 will be returned.</li> <li>• To get the current knowledge about the business units one can call GET from https://&lt;username&gt;:&lt;password&gt;@&lt;HOST&gt;/&lt;c_path&gt;/businessunits/&lt;bu_id&gt;/items as described bellow.</li> </ul>								
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Activate business unit item		
URL	https://<username>:<password>@<HOST>/<c_path>/business_units/{buId}/{itemId}/activate	
Method	POST	
URI parameters	buId – id of business unit itemId – id of item	
POST body parameters	<p><i>URL:</i>  https://usr:psw@&lt;HOST&gt;/company-services/business_units/online_shop/1234/activate</p> <p><i>POST BODY:</i>  none</p>	
Comments	<ul style="list-style-type: none"> <li>Used to activate (set active field to TRUE) business unit item.</li> </ul>	
Response	Code	Description
	200	Request was successfully completed
	400	Bad request – mostly due wrong sending parameters structure
	404	Resource by specified parameters was not found
	500	Internal server error

Deactivate business unit item		
URL	https://<username>:<password>@<HOST>/<c_path>/business_units/{buId}/{itemId}/deactivate	
Method	POST	
URI parameters	buId – id of business unit itemId – id of item	
POST body parameters	<p><i>URL:</i>  https://usr:psw@&lt;HOST&gt;/company-services/business_units/online_shop/1234/deactivate</p> <p><i>POST BODY:</i>  none</p>	
Comments	<ul style="list-style-type: none"> <li>Used to deactivate (set active field to TRUE) business unit item.</li> </ul>	
Response	Code	Description
	200	Request was successfully completed
	400	Bad request – mostly due wrong sending parameters structure
	404	Resource by specified parameters was not found
	500	Internal server error

## Information Services

Get business unit data									
URL	https://<username>:<password>@<HOST>/<c_path>/business_units/{buId}/items								
Method	GET								
URI parameters	buId – id of the business unit.								
POST body parameters	<p><i>URL:</i>  <i>https://usr:psw@&lt;HOST&gt;/company-services/business_units/online_shop/items</i></p> <p><i>POST BODY:</i>            none</p>								
Comments	<ul style="list-style-type: none"> <li>Required buId or 400 will be returned.</li> </ul>								
Response	Content-type: application/json								
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500	Internal server error								

## Recommendation Services

Get Top recommendations									
URL	https://<username>:<password>@<HOST>/<c_path>/recs/items								
Method	POST (Content type: application/x-www-form-urlencoded)								
URI parameters									
POST body parameters	<p><b>k</b> (mandatory) – number of top recommendations to retrieve</p> <p><b>customer_id</b> (optional) – Customer's external ID</p> <p><b>visitor_id</b> (optional) – Visitor's ID (visitor is user, that has not logged in into the system, and can be identified only by cookie)</p> <p><b>bu_id</b> (optional) – BusinessUnit (restaurant) at which user is now located (only recommends items that exist in that business unit)</p> <p><b>cart_items</b> (optional) – list of cart item IDs separated by ';' (for example 12;45;94;14).</p> <p><b>user_agent</b> (optional) – a string representing the customer's browser ( for example Mozilla%2F5.0%20(Windows%20NT%205.1%3B%20rv%3A31.0)%20Gecko%2F20100101%20Firefox%2F31.0 )</p> <p><b>user_ip</b> (optional) – a string with the customer's IP address (for example 74.125.230.36)</p>								
POST example	<p><i>URL:</i>  https://usr:psw@&lt;HOST&gt;/company-services/recs/items</p> <p><i>POST BODY:</i>  customer_id=8000160&amp;k=4&amp;bu_id=Bu+Unit&amp;cart_tems=12;13;14</p>								
Comments	<i>While parameteres <b>customer_id</b> and <b>visitor_id</b> are optional, but there is a rule, that at least one of them must be provided.</i>								
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Get Top recommendations using bought history									
URL	https://<username>:<password>@<HOST>/<c_path>/recs/items/bought/{item_id}								
Method	POST (Content type: application/x-www-form-urlencoded)								
URI parameters	<b>item_id</b> (mandatory) – item's ID								
POST body parameters	<p><b>k</b> (mandatory) – number of top recommendations to retrieve</p> <p><b>customer_id</b> (optional) – Customer's ID</p> <p><b>visitor_id</b> (optional) – Visitor's ID (visitor is user, that has not logged in into the system, and can be identified only by cookie)</p> <p><b>bu_id</b> (optional) – BusinessUnit (restaurant) at which user is now located (only recommends items that exist in that business unit)</p> <p><b>cart_items</b> (optional) – list of cart item IDs separated by ';' (for example 12;45;94;14).</p> <p><b>user_agent</b> (optional) – a string representing the customer's browser ( for example Mozilla%2F5.0%20(Windows%20NT%205.1%3B%20rv%3A31.0)%20Gecko%2F20100101%20Firefox%2F31.0 )</p> <p><b>user_ip</b> (optional) – a string with the customer's IP address (for example 74.125.230.36)</p>								
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Get Top recommendations using viewed history									
URL	https://<username>:<password>@<HOST>/<c_path>/recs/items/viewed/{item_id}								
Method	POST (Content type: application/x-www-form-urlencoded)								
URI parameters	<b>item_id</b> (mandatory) – item's ID								
POST body parameters	<p><b>k</b> (mandatory) – number of top recommendations to retrieve</p> <p><b>customer_id</b> (optional) – Customer's external ID</p> <p><b>visitor_id</b> (optional) – Visitor's ID (visitor is user, that has not logged in into the system, and can be identified only by cookie)</p> <p><b>bu_id</b> (optional) – BusinessUnit (restaurant) at which user is now located (only recommends items that exist in that business unit)</p> <p><b>cart_items</b> (optional) – list of cart item IDs separated by ';' (for example 12;45;94;14).</p> <p><b>user_agent</b> (optional) – a string representing the customer's browser ( for example Mozilla%2F5.0%20(Windows%20NT%205.1%3B%20rv%3A31.0)%20Gecko%2F20100101%20Firefox%2F31.0 )</p> <p><b>user_ip</b> (optional) – a string with the customer's IP address (for example 74.125.230.36)</p>								
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Get Top recommendations for category									
URL	https://<username>:<password>@<HOST>/<c_path>/recs/items/category/{cat_level}/{cat_id}								
Method	POST (Content type: application/x-www-form-urlencoded)								
URI parameters	<b>cat_level</b> (mandatory)– level number of category <b>cat_id</b> (mandatory)– category's ID								
POST body parameters	<b>k</b> (mandatory) – number of top recommendations to retrieve  <b>customer_id</b> (optional) – Customer's external ID <b>visitor_id</b> (optional) – Visitor's ID (visitor is user, that has not logged in into the system, and can be identified only by cookie) <b>bu_id</b> (optional) – BusinessUnit (restaurant) at which user is now located (only recommends items that exist in that business unit) <b>cart_items</b> (optional) – list of cart item IDs separated by ';' (for example 12;45;94;14). <b>user_agent</b> (optional) – a string representing the customer's browser ( for example Mozilla%2F5.0%20(Windows%20NT%205.1%3B%20rv%3A31.0)%20Gecko%2F20100101%20Firefox%2F31.0 ) <b>user_ip</b> (optional) – a string with the customer's IP address (for example 74.125.230.36)								
POST example	<i>URL:</i> <i>https://usr:psw@&lt;HOST&gt;/company-services/recs/items/category/2/345</i> <i>POST BODY:</i> <i>customer_id=8000160&amp;k=4&amp;bu_id=Bu+Unit&amp;cart_tems=12;13;14</i>								
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Get Top recommendations for checkout page									
URL	https://<username>:<password>@<HOST>/<c_path>/recs/items/checkout								
Method	POST (Content type: application/x-www-form-urlencoded)								
URI parameters									
POST body parameters	<p><b>k</b> (mandatory) – number of top recommendations to retrieve</p> <p><b>cart_items</b> (mandatory) – list of cart item IDs separated by ';' (for example 12;45;94;14).</p> <p><b>customer_id</b> (optional) – Customer's ID</p> <p><b>visitor_id</b> (optional) – Visitor's ID (visitor is user, that has not logged in into the system, and can be identified only by cookie)</p> <p><b>bu_id</b> (optional) – BusinessUnit (restaurant) at which user is now located (only recommends items that exist in that business unit)</p> <p><b>user_agent</b> (optional) – a string representing the customer's browser ( for example Mozilla%2F5.0%20(Windows%20NT%205.1%3B%20rv%3A31.0)%20Gecko%2F20100101%20Firefox%2F31.0 )</p> <p><b>user_ip</b> (optional) – a string with the customer's IP address (for example 74.125.230.36)</p>								
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