Tracking transactions with the data layer

> ⊘ This guide is for developers who want to set up data tracking using the default data layer events supported by the Frosmo Platform. If your site has or is getting a basic feature setup from Frosmo, see the appropriate site preparation guide instead. Basic feature setups rely on their own dedicated data layer events.

> ⚠ To use the data layer on a site, the data layer module must be enabled for the site.

For an introduction to transactions and transaction tracking in the Frosmo Platform, see Data tracking overview.

Tracking transactions with the data layer means triggering a **transaction event** whenever a visitor successfully completes an action that qualifies as a transaction. The data you pass in the transaction event defines the transaction.

You can trigger transaction events from:

- Page code (meaning directly from the site source code)
- Shared code

Page code is the recommended solution. If you cannot use the data layer in your page code, use shared code.
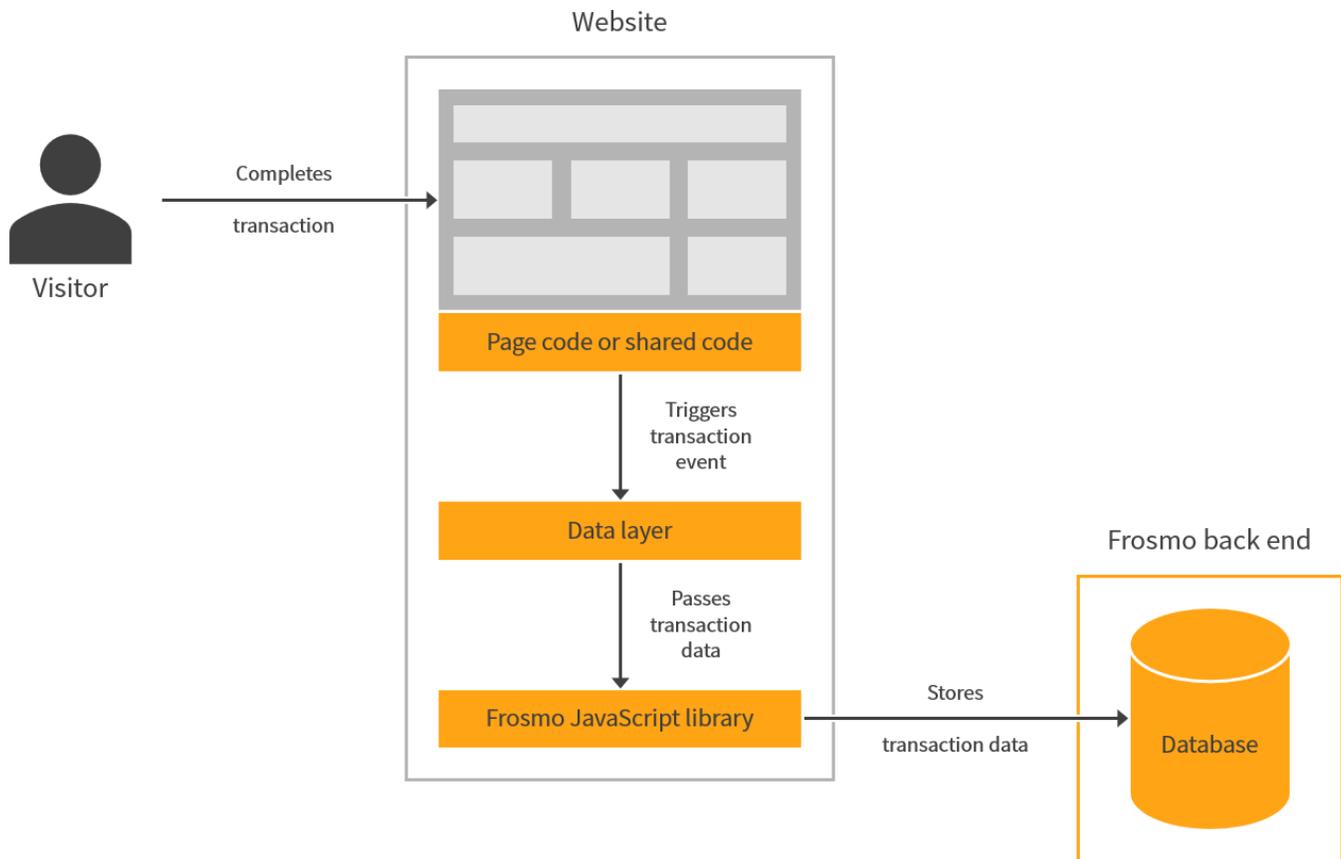

Figure: Tracking transactions by triggering a transaction event from a page (click to enlarge)

Triggering transaction events

To trigger a transaction event, call the `dataLayer.push()` function with a **transaction object** containing the transaction data:

```
dataLayer.push({
    transactionProducts: [{
        id: 'string',
        name: 'string',
        price: 0,
        sku: 'string',
        /* Optional */
        quantity: 0
    }],
    /* Optional */
    transactionId: 'string',
    transactionTotal: 0
});
```

Transaction object

The transaction object contains the data of a single transaction event.

Table: Transaction object properties

Property	Description	Type	Role
transaction Id	Unique transaction ID. ⚠ The platform registers a transaction with a given ID only once. If you trigger a transaction event with the same ID multiple times, the platform ignores all but the first event.	String (36)	Option al
transaction Products	List of products purchased in the transaction. For more information about the product data, see the following table.	Array of transaction product objects	Requir ed
transaction Total	Total purchase value of the transaction.	Number	Option al

Table: Transaction product object properties

Property	Description	Type	Role
id	Product ID. The product ID is the same value you pass in the id property of a product object when tracking products. This property is optional if name or sku is defined. You must define at least one of the three. ⚠ If you do not use the proper product ID as the property value, the platform has no way of mapping the purchased product to the corresponding product in the Frosmo product database. For example, if you wanted to create a product recommendation based on the transactions, the recommendation engine would not be able to map the purchased products to tracked products and would therefore fail to return the product data for the transactions.	String (128)	Requir ed | Option al
name	Product name. The product name is the same value you pass in the name property of a product object when tracking products. This property is optional if id or sku is defined. You must define at least one of the three.	String (128)	Requir ed | Option al
price	Unit price used for the product in the transaction.	Number	Requir ed
quantity	Number of items purchased in the transaction.	Number	Option al
sku	Stock keeping unit (SKU) code for the product. This property is optional if id or name is defined. You must define at least one of the three.	String (128)	Requir ed | Option al

Transaction examples

Example: Triggering a transaction event with one product

```
dataLayer.push({
    transactionId: '1010101010',
    transactionProducts: [{
        id: '123456',
        name: 'Cheetah Plushy',
        price: 9.99,
        quantity: 3
    }]
});
```

Example: Triggering a transaction event with two products

```
dataLayer.push({
    transactionId: '1010101011',
    transactionProducts: [{
        id: '123456',
        name: 'Cheetah Plushy',
        price: 9.99,
        quantity: 3
    }, {
        id: '123457',
        name: 'Lion Plushy',
        price: 19.99,
        quantity: 2
    }]
});
```

Testing transaction tracking

For instructions on how to test that transactions are correctly tracked on a site, see Testing data tracking.