

Building a mobile version
using the VTEX platform

VTEXbook



VTEX

**The True Cloud
CommerceTM Platform**

2018 Edition

First Edition (September 2018)
This edition applies to VTEX The True Cloud Commerce™ Platform

Comments
may be
addressed to:



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List of abbreviations and acronyms

ADD	Addition
API	Application Program Interface
APP	Application
CMS	Content Management System
CSS	Cascading Style Sheet
HREF	Hypertext Reference
HTML	Hypertext Markup Language
JS	Java Script
OMS	Order Management System
SWF	Small Web Format
TAG	Code line
TCP/IP	Transmission Control Protocol/Internet Protocol
USHCC	United States Hispanic Chamber of Commerce
USPAACC	United States Pan Asian American Chamber of Commerce
WBE	Women-Owned Business Enterprises
WBENC	Women Business Enterprise National Council
XML	Extensible Markup Language

VTEXbook CREATORS

First Edition (2018)

All editions of the VTEXBook were produced by experts from around the world.

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PREAMBLE

This VTEXBOOK provides information to simplify the design and development of the VTEX mobile commerce version.

All information found herein is intended for general stakeholders and for system programmers who will plan, install, and customize dedicated mobile websites. We will not address any topic in confrontation with the responsiveness concept. The required concepts and tasks for making the product operational are illustrated by figures and practical examples.

The reader is assumed to have a basic VTEX knowledge and to be familiar with ecommerce.

IN TRO DUC TION



What is a Mobile Version?

This refers to a website with a version exclusively designed for mobile devices (tablets and smartphones, either ios or android). Its content is completely independent and you can change it as desired without impacting the desktop version.

What is a Mobile Version within VTEX

In the Vtex platform, you can create a separate environment for the mobile version, that is, when the user visits the website, the platform automatically identifies which device is being used and directs him/her to the configured template.

Mobile x Responsive Version

When a website is responsive, it has only one version for all devices (desktop, tablet, and smartphone) and, with programming support, an adaptation is developed so that its elements are “rearranged” for each device. Thinking about maintenance, the responsive version is best indicated, since it is just one website. However, all content displayed on the desktop version (Images, Scripts, CSS) will also be loaded on the mobile version, thus impacting the loading speed and user purchase experience.

Observation: The Browser (Opera, Safari, Chrome, etc) variation may affect the layout.

The Benefits of a Mobile Website

It is now essential that all websites offer its visitors a fluid and user-friendly shopping experience, with well-arranged, non-overlapping and, especially, intuitive elements.

Taking this into account, as well as the current trend for more and more e-consumers using their mobile devices to research products on the internet, those websites that are prepared for this demand are ahead of their competitors as far as usability and sales potential are concerned.



MOBILE

project planning
and implementation

2.1 - UX

Every layout shall be developed based on a user experience involving mobile devices to browse and search products through shopping websites. We recommend that an in-store user behavior analysis be performed before the mobile layout development and again after the mobile version is released.

The Desktop and Mobile versions shall have a flow where one can easily, quickly, and intuitively find the desired product.

Any barriers shall be removed - not all information displayed in the Desktop version shall be displayed in the Mobile one.

2.2 - Deployment

Structuring a mobile website within Vtex is a very simple task: a layout and technical knowledge about HTML, CSS, and JS are required to run the front-end. A mobile version deployment project takes an average of 50 to 70 hours, depending on the number of pages and customizations.

If you do not have technical knowledge, we recommend hiring a front-end professional or agency to develop the work.

A large, stylized letter 'S' in a dark blue color serves as the background for the entire image. It is centered and takes up most of the frame. The background is a solid magenta color.

VTEX

Environment

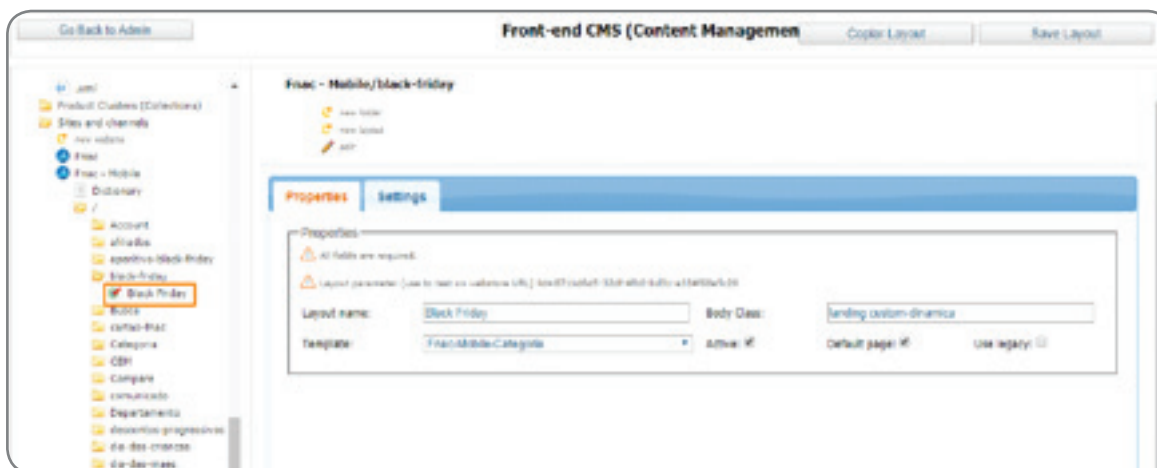


Imagem 02 - Name and folder structure

3.3 - Template Types

Every HTML structure of a page is called a “Template” and, in Vtex, we use this template for one or more pages. Off-the-shelf templates are also available and they can be applied to create a HTML display structure for a product.

3.4 - Good Naming Practices

CMS orders the template names alphabetically. For organizational purposes, we recommend adding text before every mobile template. For example: mobile-home, mobile-category, and mobile-product. This way, all templates will be grouped together.

The background features a vibrant pink color with large, dark blue geometric shapes. A prominent shape on the left resembles a stylized 'Z' or a series of connected triangles. Another large shape on the right is a dark blue rectangle with a triangular cutout at the bottom right corner. The text 'INITIAL Development' is overlaid on the pink background, with 'INITIAL' in a smaller font and 'Development' in a larger font, both in white.

INITIAL Development

4.1 - Building the First HTML Template

To build a new template within “CMS > HTML Templates”, click “New template”, enter the template name and HTML, and finally click “Save Template”.

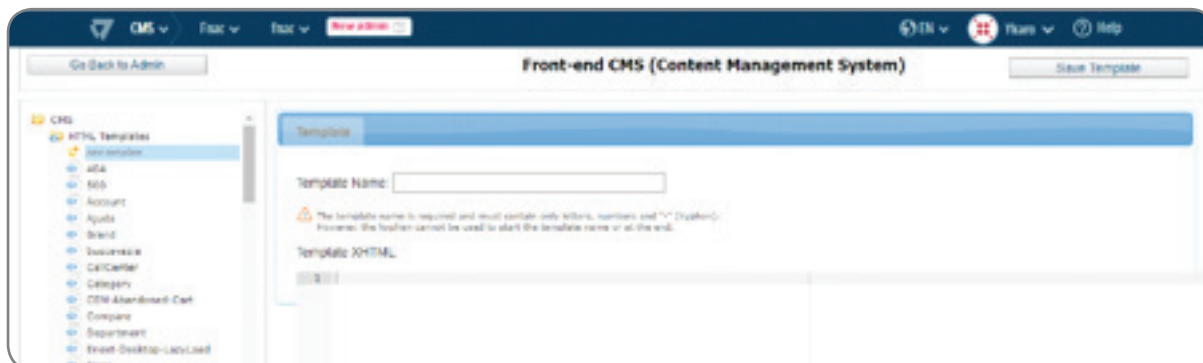


Image 03 - Template

4.2 - Good HTML Structuring Practices

We recommend writing a clean and indented code, respecting the HTML element hierarchy. The Platform has a validation system that prevents saving if any element is missing.

4.3 - Building Sub-templates

Sub-templates are templates that can be added within another template. This is similar to the “include” command in other languages. In this section, we build the block HTML to be used in various templates, such as: Header, Footer, Newsletter, etc. To reference a sub-template within a template, simply add “<vtex:template id=“subtemplate-name” />” where necessary.

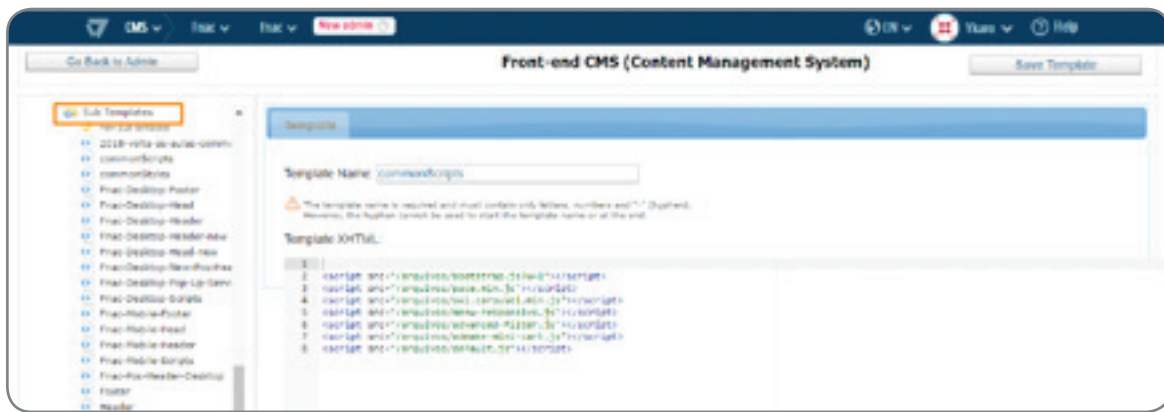


Image 04 - Sub-template

4.4 - Referencing CSS and JS

Create 2 sub-templates to add the CSS's and JS's that must be referenced on all pages. For example: we create a script sub-template that will be referenced in the Footer and another in the Header, to be referenced at the top of the page.

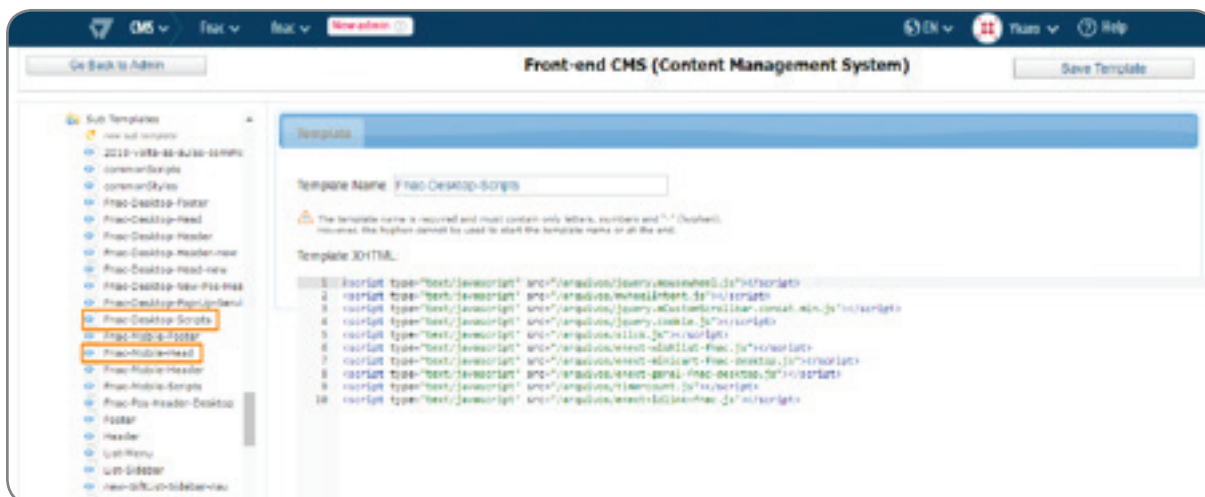


Image 05 - CSS e JS Reference

4.5 - Configuration

To configure a desktop website, click its world icon:

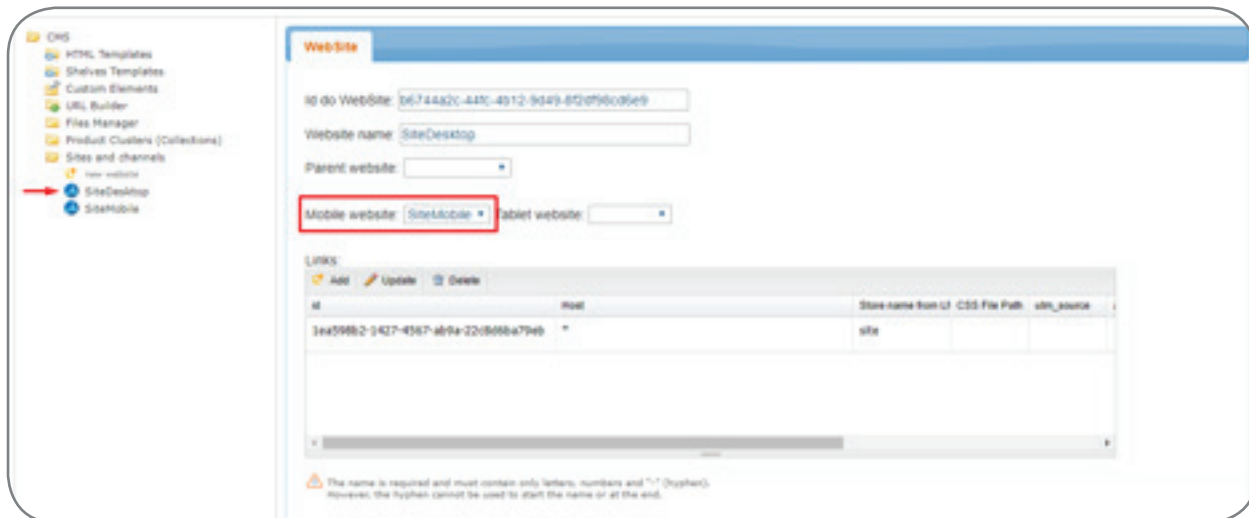


Image 06 - Website configuration

In the side tab, configure the Mobile website by choosing the option you previously created and confirm the operation by clicking the Save button at the top right of the screen.

In the mobile version dictionary, it is not necessary to create a WebsiteAddress key, since the mobile website will have the same URL as the standard store website.

Once all procedures have been performed, upon accessing the store via the mobile phone, the system will add the uam and mobile parameters to the URL, thus indicating that the browser is accessing the store version for mobile devices.

If you also require a **Tablet** environment, simply repeat the above steps.

4.6 - Liking a Template to a Page

After creating the whole template HTML and the sub-templates, link the template to the folder layout.

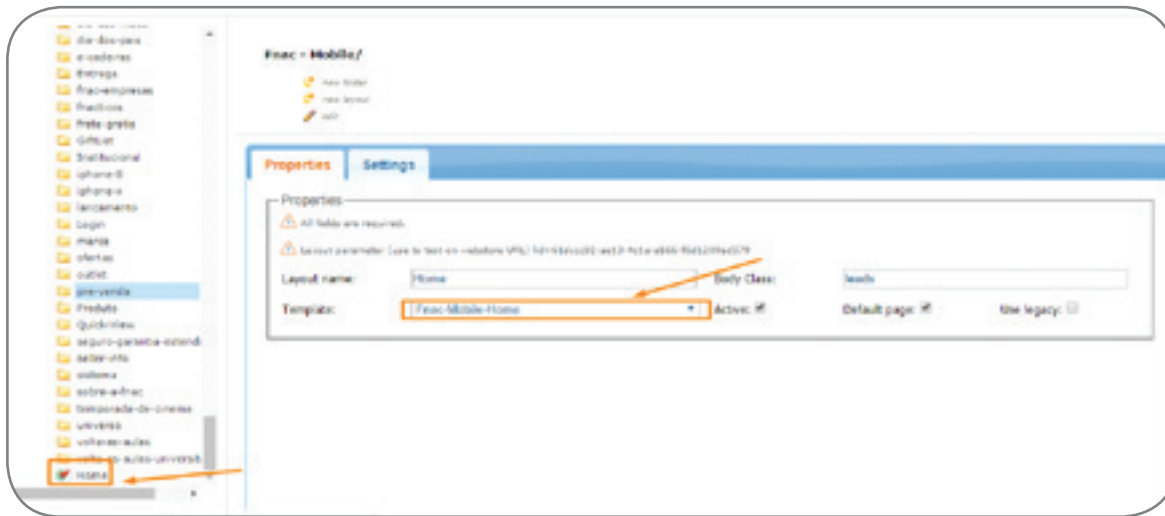


Image 07 - Template link to layout

4.7 - Using Controls

Control Types

For using a control, you must (?) a tag `<vtex:cmc:{control-id}/>`. Several types of pre-structured controls are available with off-the-shelf blocks presenting dynamic content.

Function of Controls

The controls are used to make it easier to build a store, i.e., you can set the necessary control, put it in HTML, and it will bring an entire, ready-to-use block for searching, breadcrumbs, filters, product names, prices, etc.

4.8 - Storefronts

Function of Shelf

Storefronts are used to display products on several pages. They can also be used for recommendations on the product page and empty searches.

First, before setting up a storefront, you must create a collection of products to be displayed on it. It is also required that the pages are structured and their appropriate controls inserted in their templates.

Building a Shelf

A shelf template is built in CMS. From that page, browse to "Shelves Templates" and then click "new template".

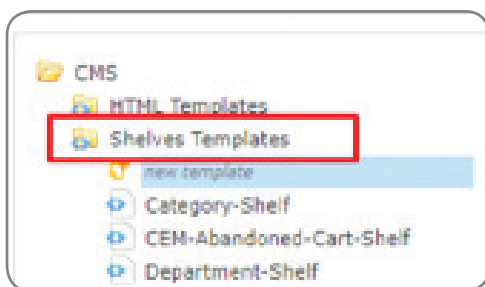


Image 08 - Select Shelves Templates

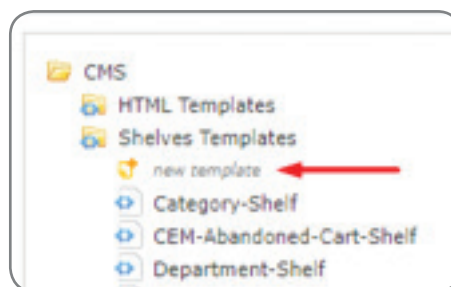


Image 09 - New template

On the next screen, name the shelf and customize the main class, if necessary.

A screenshot of the 'Shelf Template' configuration form. At the top, it says 'Shelf Template Id: 99bdc8cc-6563-440e-859f-3c02f3dccc66'. Below this are two input fields: 'Shelf Template Name:' and 'CSS Class:'. A red arrow points to the 'Shelf Template Name:' field. To the right of the 'CSS Class:' field is a checkbox labeled 'Rounded corners?'. Below the input fields is a warning icon and text: 'The template name is required and must contain only letters, numbers and "-" (hyphen). However, the hyphen cannot be used to start the template name or at the end.' At the bottom, there is a 'Template Code:' label.

Image 10 - Naming Shelf and Class

In the “**Template Code**” text field (**above**), you will create the HTML for your shelf.

All tags are valid and within this field you will have access to an object called **\$product**. In this object, you will have most of the product properties, the most common being:

- **\$product.Id**: Showing the product ID.
- **\$product.EscapedName**: Showing the product name.
- **\$product.DescriptionShort**: Showing a brief product description.
- **\$product.Uri**: Showing the product link.
- **\$product.GetImageTag (number corresponding to the image)**: It shows the image and the image type desired, following the list of image sizes according to the Store layout.

4.9 - Standard Templates for Building a “Shelf Association”

To link a shelf to a page template, first you need to create a “Control”, as shown in the following example:

```
<vtex:contentPlaceholder id="Vitrine Principal" />
```

Image 11 - Controlling code

With the control inserted in your page, browse to **“Sites and Channels”** within CMS and select the page that is using the configured template:

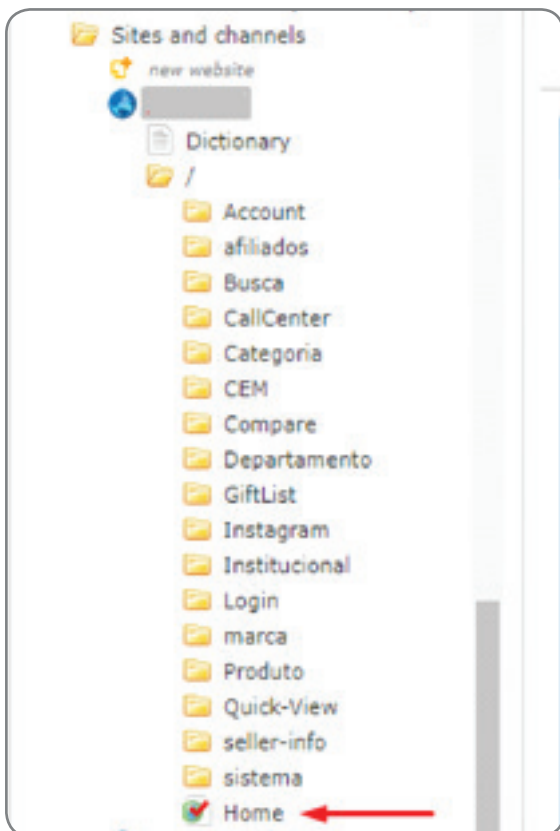


Image 12 - Home

In the right-hand window, click the **“Settings”** tab and then click **“add object”** in your control:

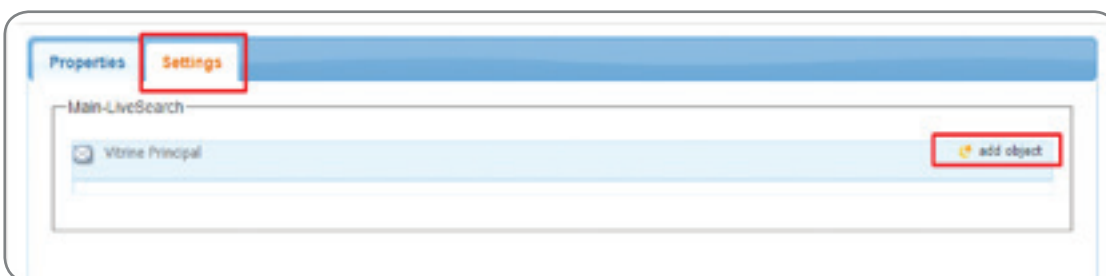


Image 13 - Add object

In the new window that will open, select the **"Collection"** option and then click the **"Add"** button. Name your control:

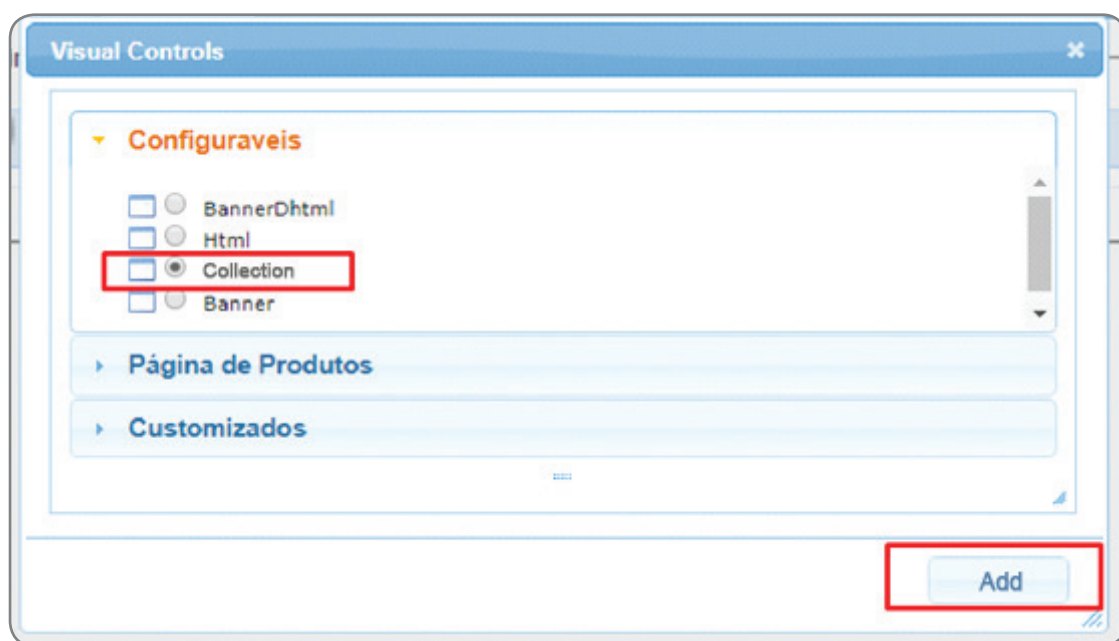


Image 14 - Add collection

Right after adding it, save the content by clicking **"Save Settings"**:

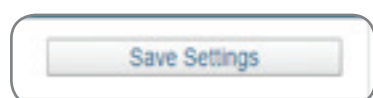


Image 15 - Save settings

After the control is saved, you will need to add its contents. To do this, click the pencil icon, as highlighted in the image below:

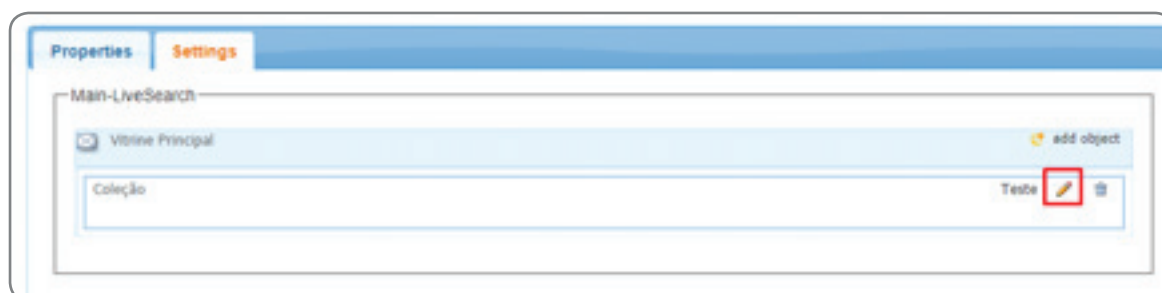


Image 16 - Edit

In the new window, you will have to set the following items:

Edição de controle visual

Propriedades

Todos os campos são obrigatórios.

Layout: Select the shelf template used in the storefront

Número de Colunas: Número de Itens: These items set the layout, quantity, and display criteria for the items

☐ Mostrar não disponíveis ☐ Randômica ☐ Paginação

Conteúdo

Click here to add a new collection

Busca em: Nome, Parceiro, Campanha e Categoria

Nome	Parceiro	Campanha	Categoria	Marca	Origem	Palavra-chave	Período	Ativo	Coleção	Querystring da Busca

Save changes before searching or changing pages.

Image 17 - Edit properties

Click **"Add Content"** to open a window in which you will be able to change other settings, as shown in the image:

Cadastro do Conteúdo

Conteúdo

Search Query String: Name to identify each set of items

Search Query String: The parameters entered in this field determine the search result that will be displayed in this content

Este campo quando preenchido tem prioridade sobre a coleção.
Para preencher esse campo, faça a busca que deseja no site e cole a querystring da url desejada.
Exemplo:
Para filtrar por uma marca de id 9999: ?q=9-9999
Para filtrar por uma coleção de id 6666: ?q=6-6666
Os atributos de ordenação e paginação também podem ser usados

Collection: Click here to select the collection to be displayed in this content.

Os campos nome do conteúdo, coleção ou query de busca são obrigatórios.

Display Conditions

Partner: Campaign: Source: This sets this content display if the visitor has a matching UTM in his/her source URL.

Keywords: (comma separated words) It links content display to a search for specific term(s).

Category: Brand: Active Content ☐ Active Content

Períodos

Para adicionar um período, escolha as datas desejadas e clique em adicionar.

From: To: Add It links the content displayed in a page to a specific Category/Brand page.

It sets the timeframe when content will be active.

Image 18 - Content add

After the settings, check the **“Active Content”** and **“Add to the Content List”** options, later saving all settings.

4.10 - Using a Placeholder

Banner Upload

To create placeholders for banners, use a “<vtex:contentPlaceholder id=“{Banner Name}”> tag, as shown in the following examples:

```
<div class="x-group-super-banners data-category" data-category="banner-mosaico">
  <div class="x-left">
    <div class="x-top">
      <vtex:contentPlaceholder id="Banner-Meio-Esquerda-Top" />
    </div>

    <div class="x-bottom">
      <vtex:contentPlaceholder id="Banner-Meio-Esquerda-Bottom" />
    </div>
  </div>

  <div class="x-right">
    <vtex:contentPlaceholder id="Banner-Meio-Direita" />
  </div>
</div>
```

Image 19 - Banner

After creating the placeholders, when a template is selected for a page, it will appear in **“Settings”**, where you can add the images.

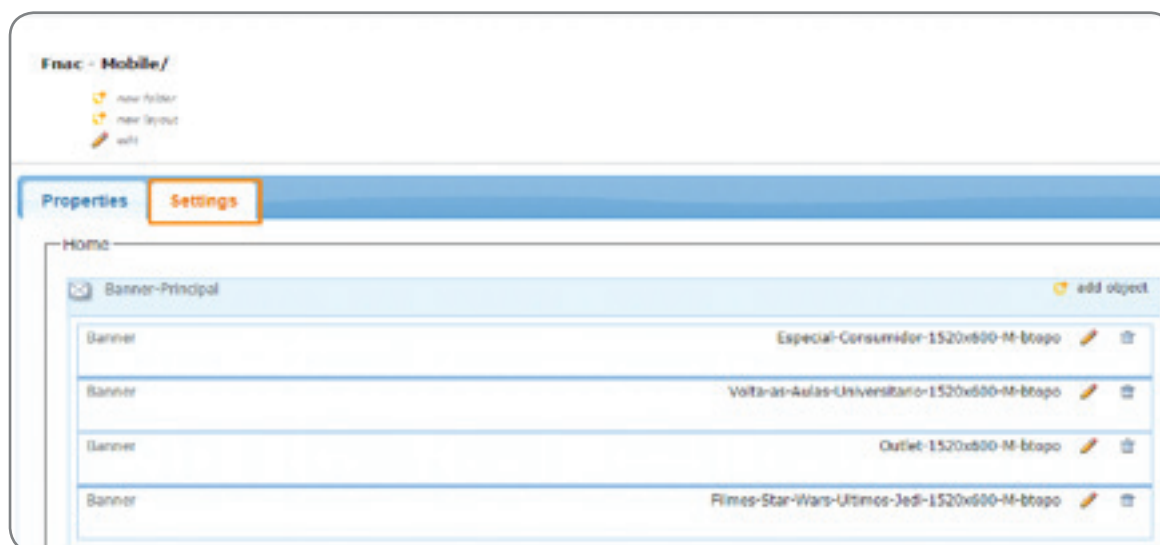


Image 20 - Settings

These banners may have conditions allowing you to enter them only in certain category type, collection, or product id.

Click **“add object”** and select the Banner option, click **“add”**, then click **Save settings** at the page top.

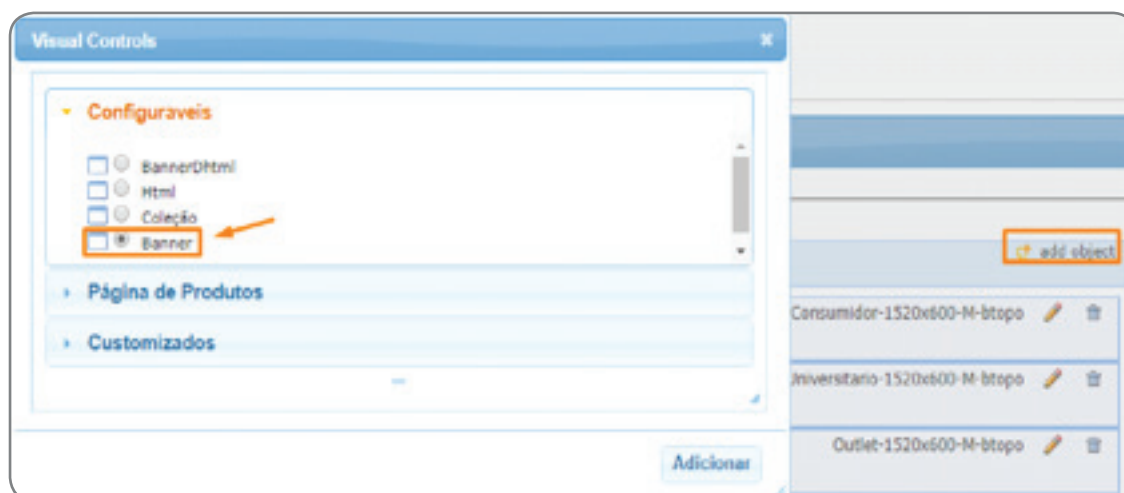
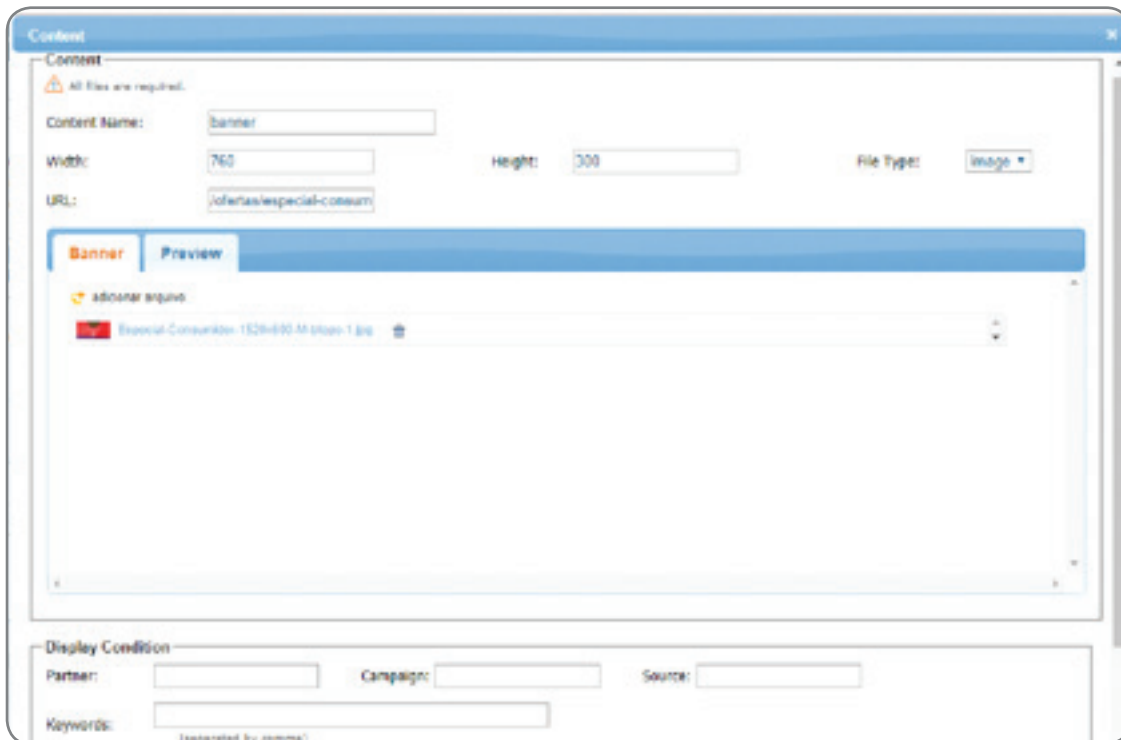


Image 21 - Add banner

Click the created banner **“pencil”** and click again on the popup that will show, completing all information. Please remember to check **“active content”**.



The screenshot shows a 'Content' form with the following fields and sections:

- Content Name:**
- Width:** **Height:** **File Type:**
- URL:**
- Display Condition:**
 - Partner:**
 - Campaign:**
 - Source:**
 - Keywords:**
- Preview:** A section with a tab labeled 'Banner' and a 'Preview' button. Below the tab is a list of items, including 'adicionar arquivo' and 'Especial-Consumos-1529x500-M-0000-1.jpg'.

Image 22 - Active content

4.11 - Configuring the Storefront

For storefront, we also use placeholders but, in this case, we must use the “Collection” control.



Image 23 - Collection

4.12 - Building CSS

Please build a “.css” extension file, stylize your page, and upload it to the platform through CMS, by following this directory path **CMS > Files Manager > .css**. In the new window, click “Add” and browse your file to upload.

To reference it in your template, simply include the <link> tag with the file href: “/files/{file-name}.css”.

Good CSS Practices

Good practices for writing CSS include:

- Always structure a hierarchy of up to 3 levels (to retain good browser performance, since it reads the rules from right to left);
- Group as many common rules as possible;
- Have a reset option for default browser styles.

VTEX Native Libraries

By default, Vtex has a jQuery external library in version 1.8.3 for use on any page. Among Vtex proprietary libraries, we would like to highlight the use of Vtex.js for handling Product Catalog and Checkout flow APIs.

4.13 - Building JS

Please build a ".js" extension file, write your code with your business rules, and upload it to the platform through CMS, by following this directory path CMS > Files Manager > .js.

In the new window, click **"Add"** and browse your file to upload.

To reference it in your template, simply include the **"<script>"** tag with src: **"/files/{file-name}.js"**.

Good JS Practices

One of the main good practices in Javascript is to always encapsulate your code so that no conflicts with external libraries or even with your own code occur.

4.14 - Using API

Vtex provides a number of open code APIs for shopkeepers and partners to customize integrations and for developers to create customizations that would not be possible with only native platform controls.

Among the APIs, we would like to highlight the Catalog, which allows queries on products, collections, categories, brands, etc.; Checkout; Master data, which allows you to create almost any kind of application with your endpoints; and Search, that allows customized searches based on text or product IDs.

4.15 - VTEX Checkout

Header and Footer Editing

Following the purchase flow from the cart page (/cart/show), it is not possible to edit central content HTML nor the structure for reasons of security and SmartCheckout operation guarantee.

Vtex has some blocks in this section that may be edited through CMS > Portal. To do this, simply click the gear icon highlighted in the following image:

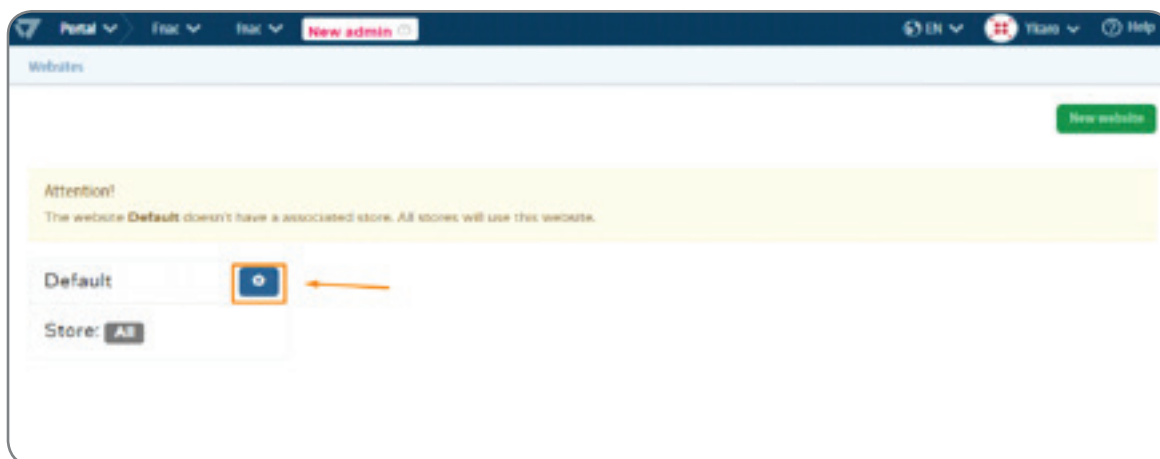


Image 24 - CMS portal

Then, to edit HTML, just click the “Templates” area in the template you want to change:

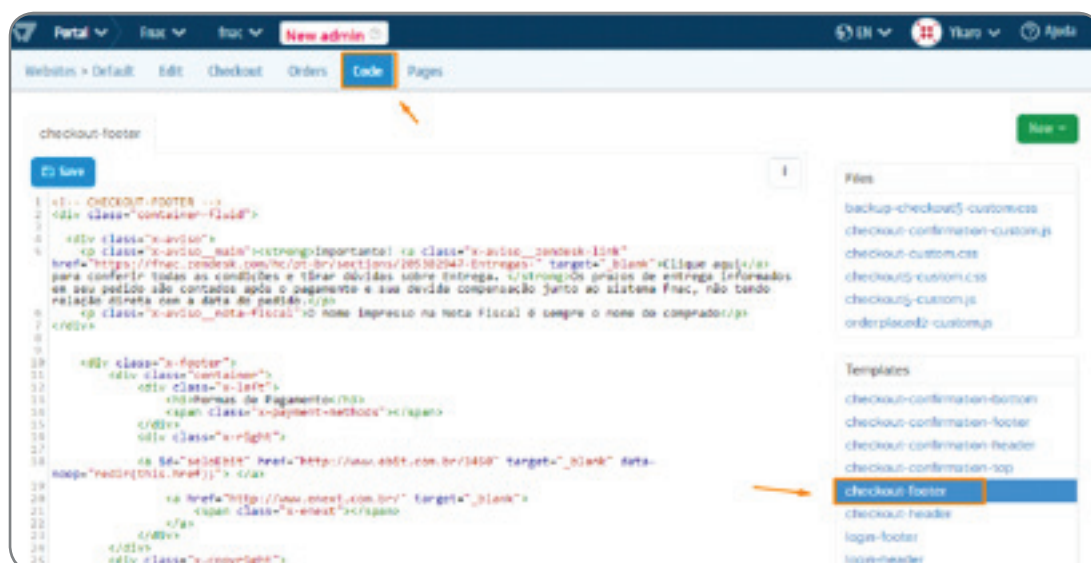


Image 25 - Template 02

Editing CSS and JS

In the same area where you can change the checkout HTML you can find the checkout CSS and JS files:

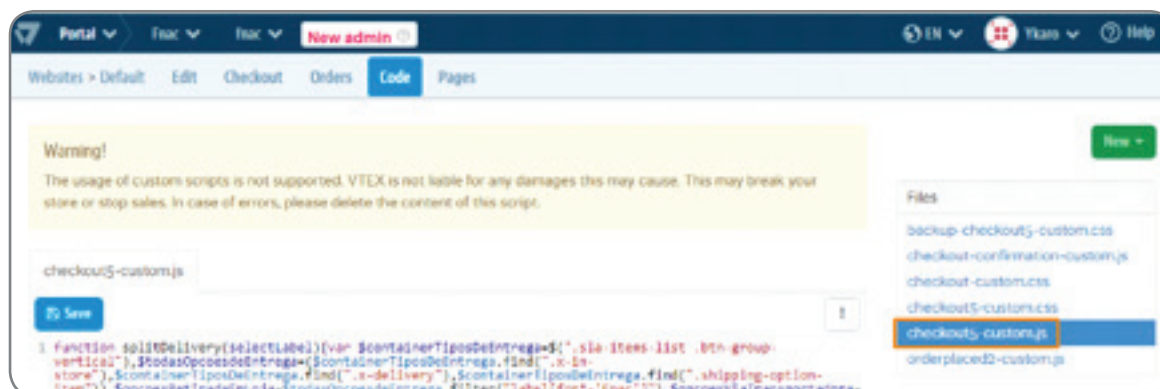


Image 26 - CSS and JS checkout

4.16 - File Upload

File Types

The file types currently supported by the platform are: Styles (.css), Scripts (.js), Flash (.swf), XML (.xml), and images (JPG/JPEG, PNG, and GIF formats). These files cannot be larger than 5MB.

Uploading

Any of these files is uploaded at the platform CMS, located in the CMS directory: File Manager > (file type):

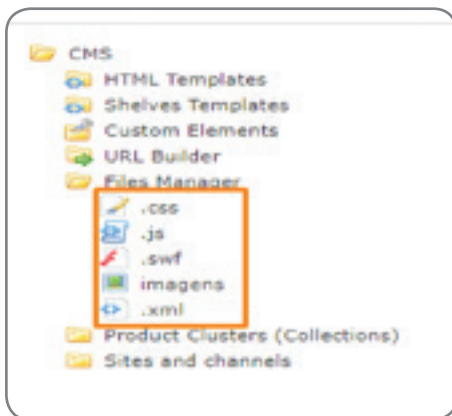


Image 27 - File manager

Configuring Desktop, Tablet, and Mobile Environments

Within the Portal Manager, navigate the sidebar in CMS > Sites and channels. In this directory, click new website.

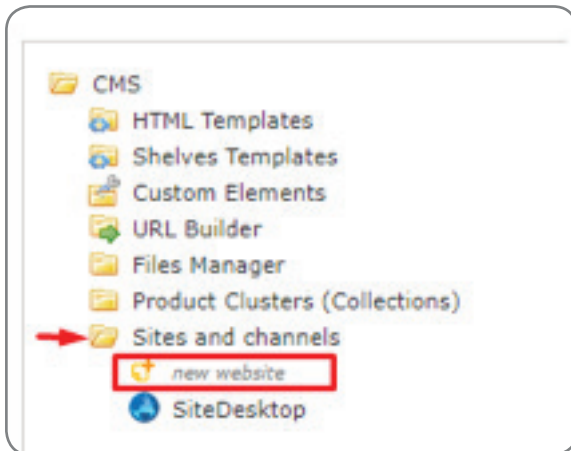


Image 28 - New website

In the new side tab opened, name the website in Website name and indicate the parent website in Parent website. After this, click the Save button at the top right of the screen.

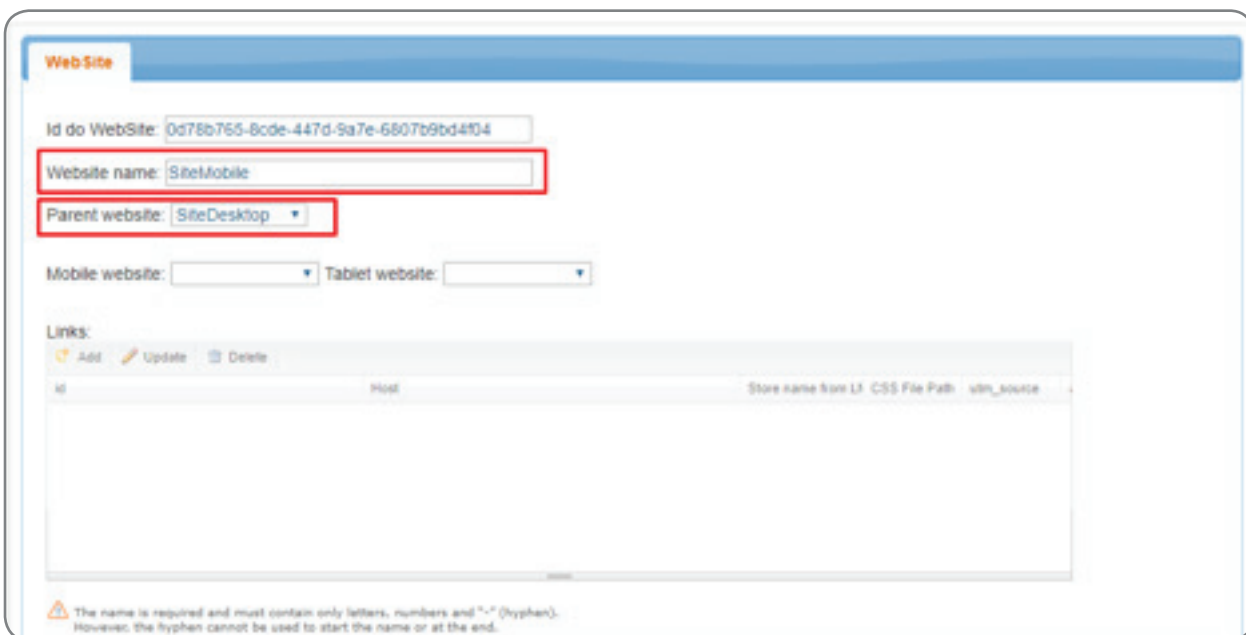


Image 29 - Website name

Approval



Test and Validation

Vtex has a cache for content refresh and this may slow down development if you wait until all content is reflected in the store.

Request	Request Type	Duration
Page/Document	Text/HTML	no longer than 30 minutes
Image (jpeg, gif, png, ico)	Image/"	no longer than 1 hour
Javascript	Text/Javascript	no longer than 1 hour
CSS	Text/CSS	no longer than 1 hour

Table 01 - Request

Thus, the best way to work with the Vtex platform is by using reverse proxy for the CSS and JS files. This way, you will test the store without uploading the files.

Several tools may help and we recommend Telerik's Fiddler and, in Mac, Charles Web Proxy.

VTEX Mobile Version Use Case

The North Face





The Brand

The North Face is perfect for people who enjoy exploring nature. With more than 50 years of history, this North American brand is the favorite for explorers and adventurers. In its early days, it manufactured jackets and backpacks for mountaineering but now it provides a complete line of sports clothing and goods for those who want to safely and comfortably cross barriers and overcome challenges (as well as cold weather).

Goal

Improve The North Face's mobile ecommerce indicators, which in turn did not follow the desktop website metrics.

The Project

Differentiating from other market players by taking advantage of the worldwide ecommerce trend of increasing mobile access. For this reason, it was determined that the mobile experience should be unique and different from the Desktop one, thus providing different shopping experiences without losing brand identity while balancing metrics between the devices.

Throughout the project, mobile development was designed with all the best SEO practices to improve the new website indexing, since a separate mobile version is better for SEO.



Results

Since the layout is different from the desktop version, that is, the navigation flow and development are specific for the mobile version, very positive results were obtained in the main ecommerce indicators.

Conversion Rate:

↑ **75,5%***

Bounce Rate:

↓ **26,1%***

Average Page View Duration:

↑ **27,3%***

Average Ticket Increase:

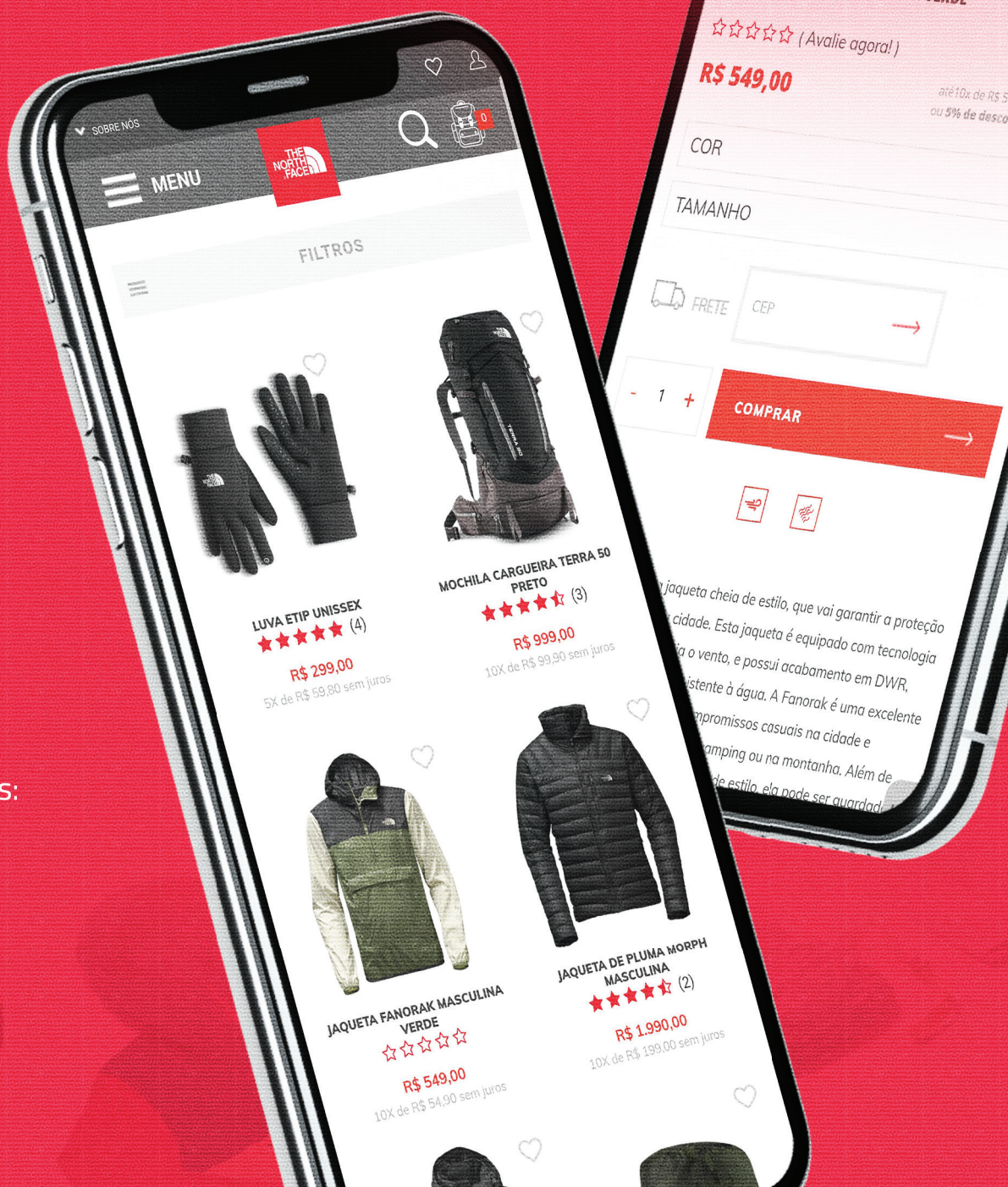
↑ **8%***

Mobile Representativeness:

↑ **61%***

increase in total ecommerce

*Results for the mobile version only



VTEXbook



The True Cloud
Commerce Platform

2018
Edition