

Progressive Web Application v4.0.1

Progressive Web Applications uses web compatibilities and provides an application experience to the users. It develops from a browser tab and makes pages more immersive with a low friction user experience.

The Progressive Web Application is lightning fast compared to the website moreover supports push notification.

Henceforth, with the use of this feature, the website works faster on a slower internet connection. Due to the faster performance, user engagement increases on the website and results in a very high conversion rate.

Important Note:

- **This module supports android chrome, opera browsers, and iOS Safari browser.**
- **The web push notification is only compatible with Android devices.**

What is the need for a Progressive Web Application?

The Progressive Web Application is recommended because it is more immersive and lightning-fast than a website or native application. Progressive Web Application also user-friendly if compared to the website and supports the push notification.

Furthermore, the best part of Progressive Web Application is that a user can use many of the features without an internet connection and once the mobile is connected to the internet the data gets synced.

In short, you can say that if you are providing a platform to your user which is user-friendly and faster then it will definitely increase the engagement of the users and increase in sales.

- The Website becomes lightning fast.
- More user-friendly.
- Supports push notification.
- No need to download/install.
- Works fast even on a slow connection.
- Increases User engagement.
- Boost conversion rate.

Lighthouse PWA Score

Lighthouse
Version: 1.6.0
BETA

Results for: <https://magento2.webkul.com/modules-demo2/>
Generated on: 4/5/2017, 4:02:18 PM GMT+5:30

97
100

Progressive Web App

These audits validate the aspects of a Progressive Web App. They are a subset of the [PWA Checklist](#).

- ✓ App can load on offline/flaky connections >
- ⓘ Page load performance is fast >
- ✓ Site is progressively enhanced >
- ✓ Network connection is secure >
- ✓ User can be prompted to Add to Homescreen >
- ✓ Installed web app will launch with custom splash screen >
- ✓ Address bar matches brand colors >
- ✓ Design is mobile-friendly >

I have developed a native application for my store, do I still need the Progressive Web Application?

For a native application, users first need to search the application in the relative store, download and install it, and then they can open and use the application. According to a study, an application loses 20% of its users on every step, from search to start using the app features.

However, a user can start using the progressive web application as soon as they find the application. There, is no need to search, download, and install the application.

Also, you need to upgrade the native application with every version of the android. You can check that many of the applications are not available for the most recent or past very old version of Android. However, the Progressive Web Application works with the browser and designed to enhance browser compatibility.

Furthermore, we are not at all saying that a native application is bad but these are few merits of the progressive web application in comparison to native applications.

If you are running a business then you should reach to all type of users. If you are using a well–designed native application like then it will surely give you high performance and consume low data. Although if you want to reach all types of customers then you should definitely go for Progressive Web Application.

Features List

- More user-friendly than a web application.
- Works lightning fast if compared to the website.
- Supports push notification for Android devices.
- Completely responsive on all the platforms.

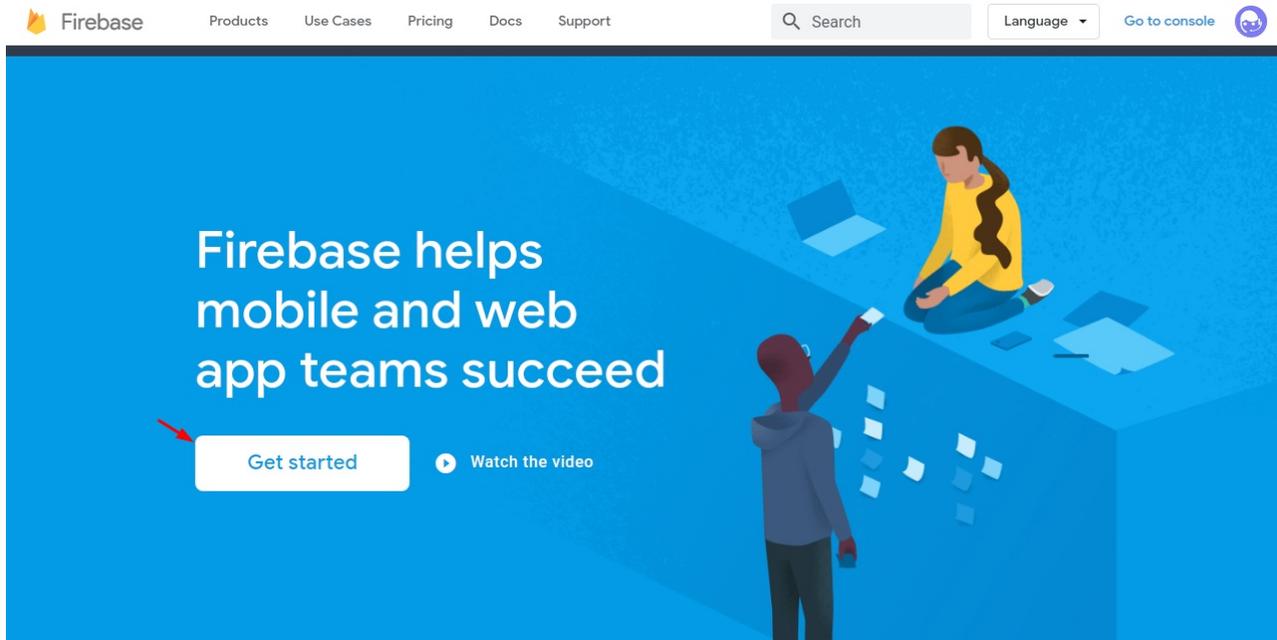
- Launches without the internet or low-quality internet.
- Looks and feels like a native application.
- Users do not need to update the progressive web application.
- No app store requires managing the application.
- Increases user engagement in the store.
- Increases store revenue due to user engagement.
- The application name can be entered by the admin.
- The admin can upload and change the application icon.
- The splash background color of the Progressive Web Application can also be changed by the admin.
- The theme color of the PWA can be selected by the admin.
- Select the orientation of PWA as Any, Natural, Landscape, and Portrait.
- Select the display type for PWA Fullscreen, Standalone, Minimal UI, and Browser.
- The admin can upload the splash screen image for iOS.
- The admin can change the version number when want to refresh the service worker cache.

New Features

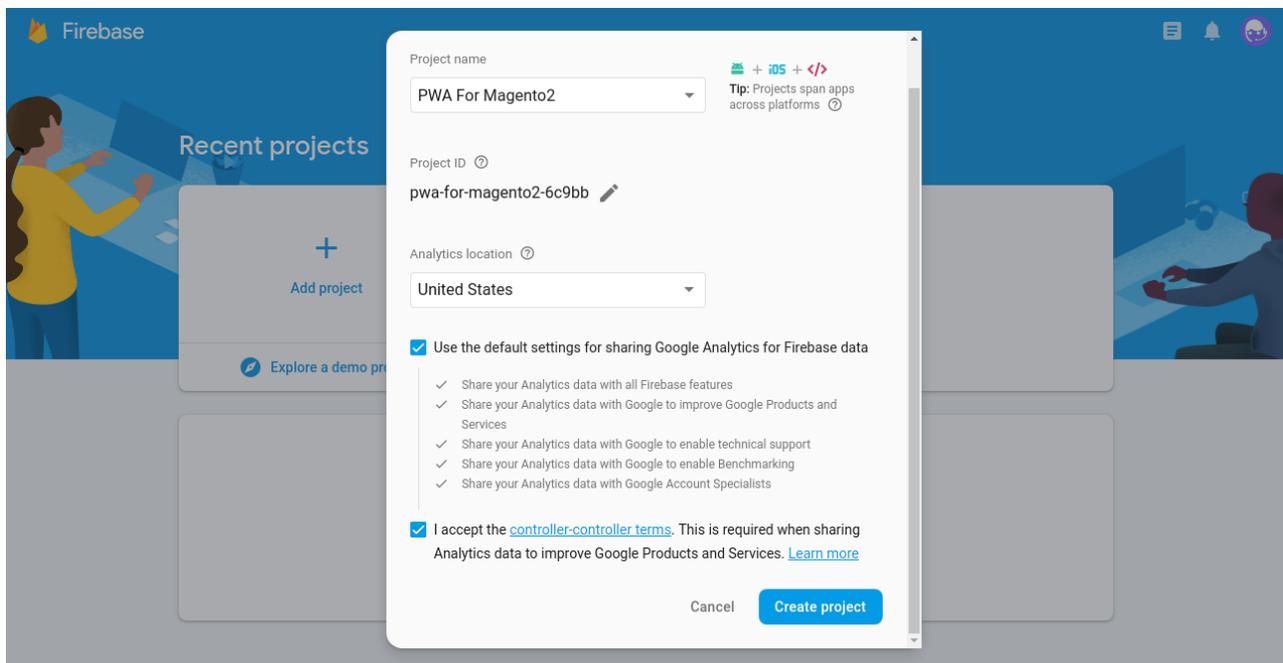
- Workbox Cache Strategies integrated with this module to make quick execution for better performance.
- Also improves website performance by caching assets in the first-page load. Workbox Background Sync Plugin is an absolute solution for resuming the interrupted network.
- Workbox Run-Time Caching to collect all the assets during page load and adds to browser cache.
- Cache Expiration Plugin to put restrictions on a cache and define how long it should allow details to be stored in a cache or how many items should be stored in a cache.

Creating Firebase Product Credentials

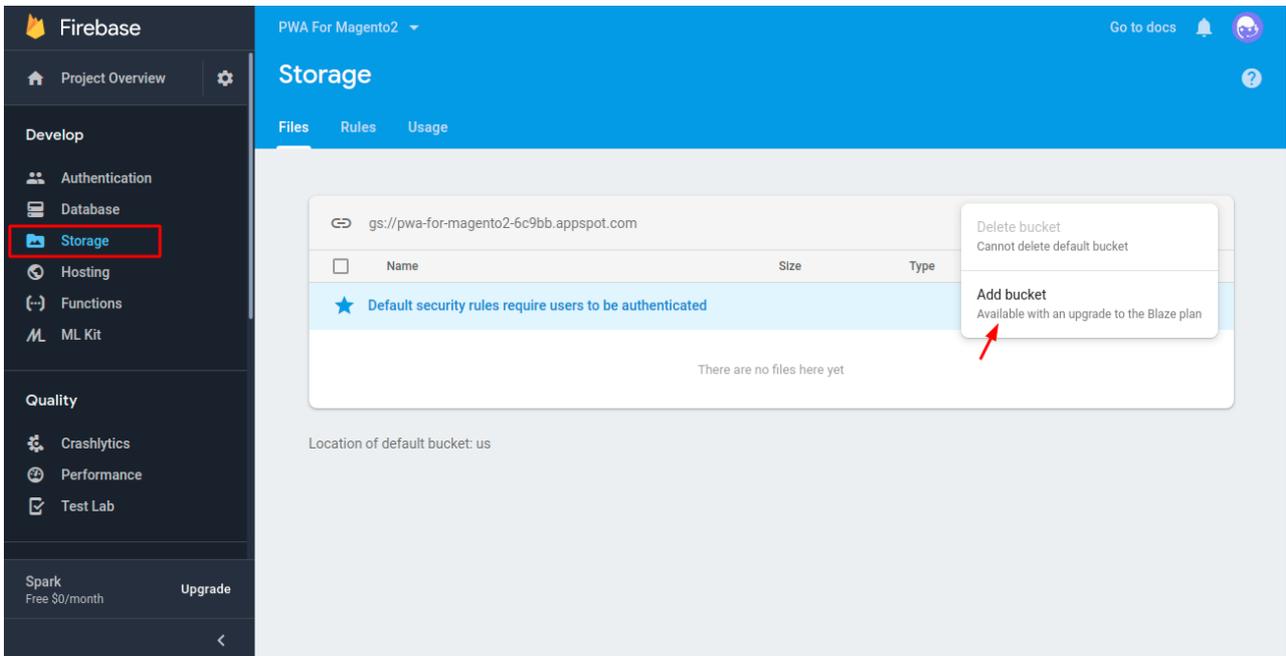
In order to use this module, you need to have **Firestore Project Credentials**, which will be used in the Magento configuration. Please visit [this](#) link and create a new project with your Gmail account.



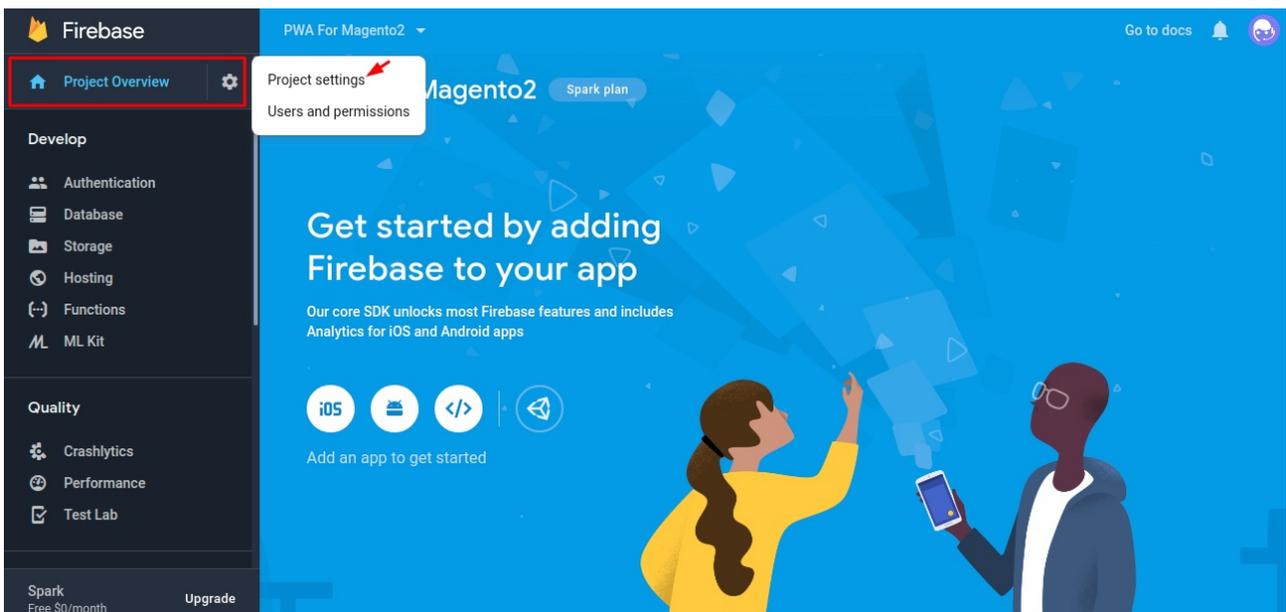
1. After opening the **Firebase** website, please click the **CREATE NEW PROJECT** button as shown in the above screenshot.
2. A small pop-up window will appear with the name of **Create a project**, here you have to enter your **Project Name** and then select your **Country/Region**.
3. Post completing the details click the **CREATE PROJECT** button.



4. Afterward creating your new project click on the Storage and create a new bucket. You can also find the default bucket here.

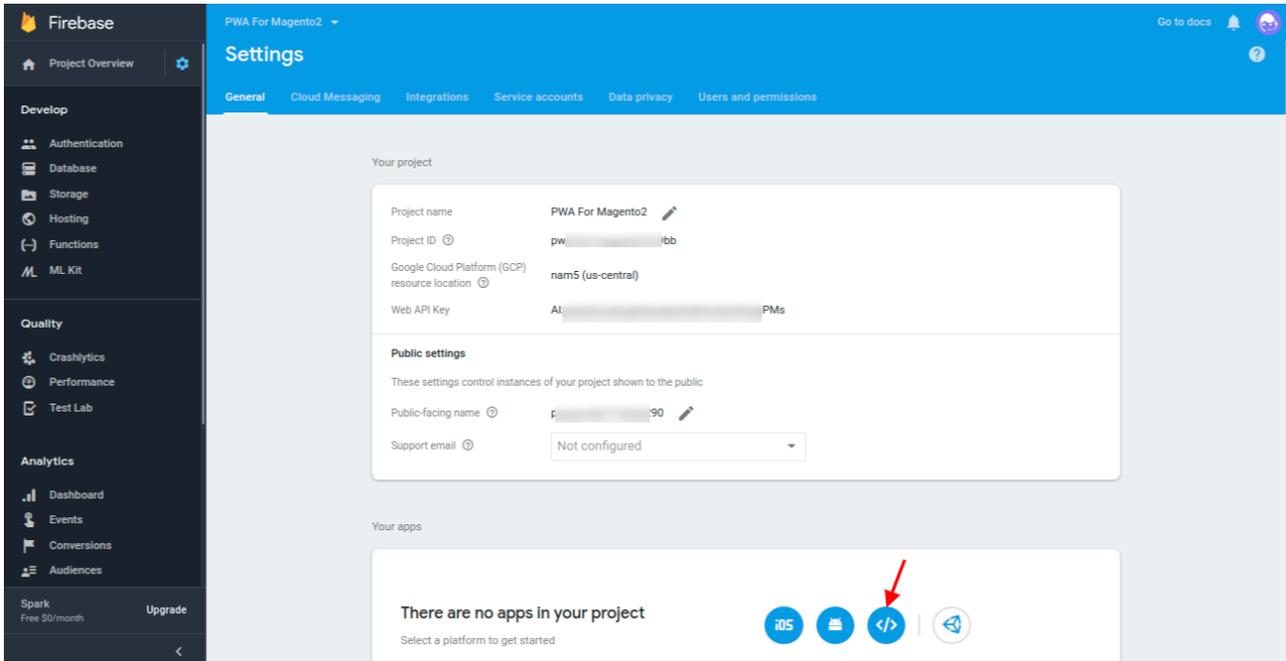


Then after creating bucket now go to, **Settings** menu icon and select **Project Settings** option. Please view the below-attached screenshot. A new Settings page will be opened.

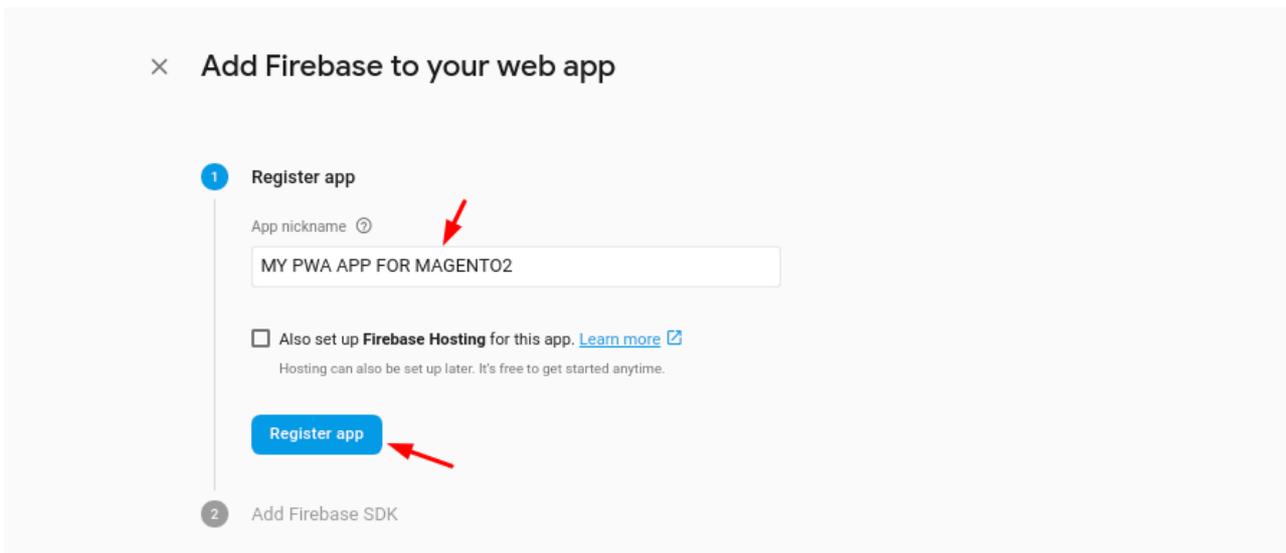


5. In the General tab find the project ID, web API key, etc. under the **setting** page.

Now click on the button as shown in the image below. This will be used to add the firebase to the web app.



Now, after clicking on the button above Register the app by entering the app nickname and click on register app-



Forthwith after successful registration, you can get the credentials that are required for the module configuration.

× Add Firebase to your web app

1 Register app

2 Add Firebase SDK

Copy and paste these scripts into the bottom of your <body> tag, but before you use any Firebase services:

```

<!-- The core Firebase JS SDK is always required and must be listed first -->
<script src="https://www.gstatic.com/firebasejs/6.3.0/firebase-app.js"></script>

<!-- TODO: Add SDKs for Firebase products that you want to use
https://firebase.google.com/docs/web/setup#config-web-app -->

<script>
  // Your web app's Firebase configuration
  var firebaseConfig = {
    apiKey: "AIzaSyD2",
    authDomain: "pwa-
databaseURL: "htt
projectId: "pwa-fi
storageBucket: "pi
messagingSenderId
appId: "1:8311746
  };
  // Initialize Firebase
  firebase.initializeApp(firebaseConfig);
</script>

```

Learn more about Firebase for web: [Get Started](#), [Web SDK API Reference](#), [Samples](#)

Continue to console

Now, click the **CLOUD MESSAGING** tab, here you will find your **Project Credentials**, copy and save your **Server Key** and **Sender ID**, **Web Push Certificates/ Public Key** as displayed below.

Furthermore, these credentials will be used in the Magento configuration.

PWA For Magento2

Go to docs

Settings

General Cloud Messaging Integrations Service accounts Data privacy Users and permissions

Project credentials

Add server key

Key	Token
Server key	AAAawYXeY2l:APA...H67GSB04fBKgAG-MyICSZVJi9dIE...5rJR-coJveBFT0NmGbVo
Legacy server key ?	AlzaSyDgazbx.../eFJ8pFE4

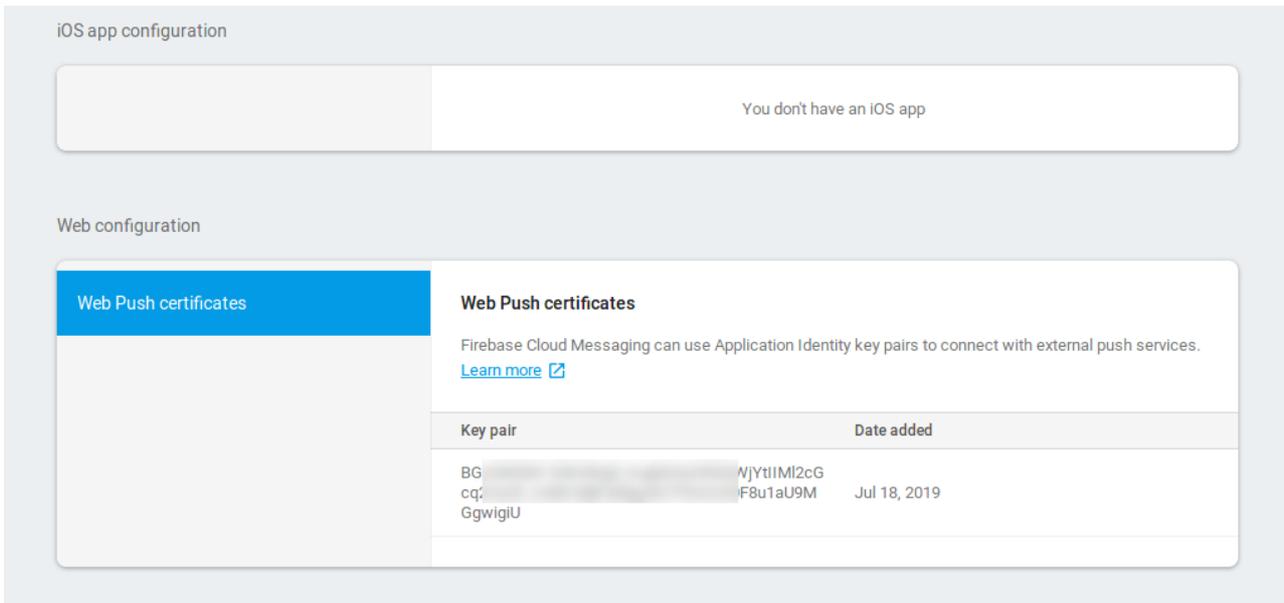
Sender ID ?

83...90

iOS app configuration

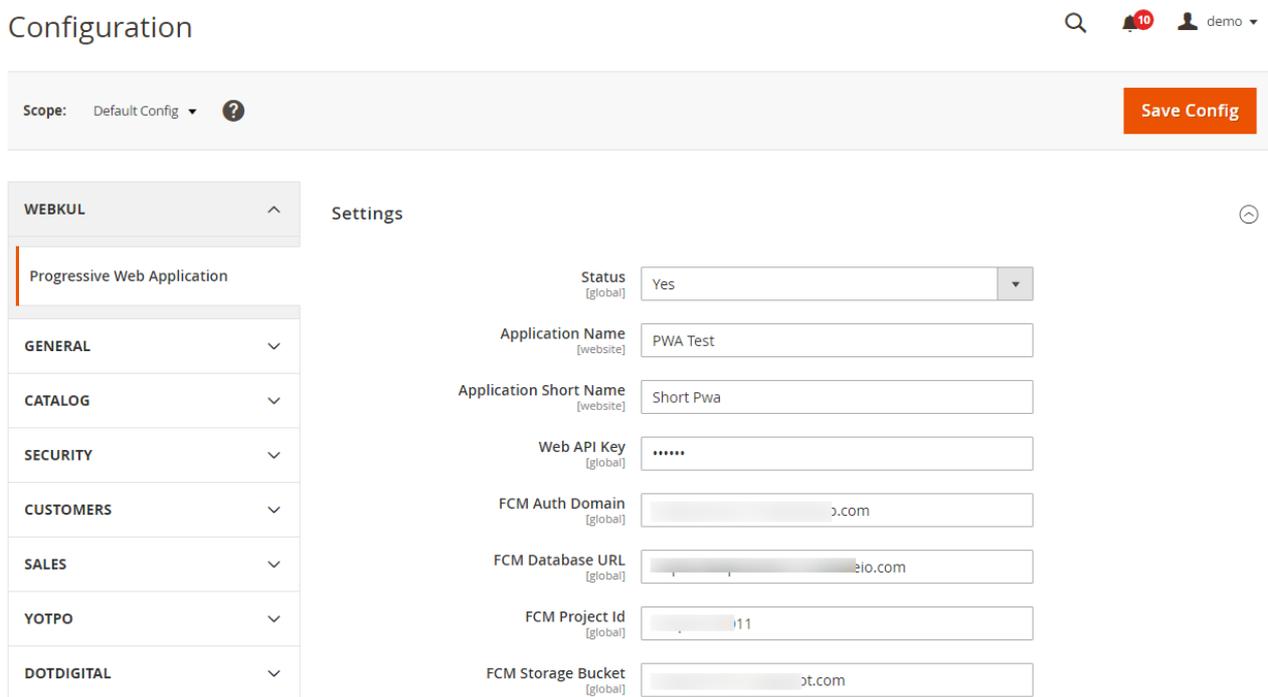
You don't have an iOS app

83...90



Configuration – Progressive Web Application

After the installation of the module, the admin can configure the module settings. For this, the admin will navigate to **Stores > Configuration > Progressive Web Application** as per the below image.



ADVANCED

Messaging Sender Id [global]

FCM App Id [global]

Server Key [global]

Public Key [global]

Measurement Id [global]

Application Icon [website] No file chosen
 Delete Image
Allowed file types: jpg, jpeg, gif, png

Splash Background Color [website]

Theme Color [website]

Select Orientation [global]

Select Display [global]

IOS Splash Screen Image [website] No file chosen
 Delete Image
Allowed file types: jpg, jpeg, gif, png and size must be 2048x2732

Service Worker Version [website]
Change the version number when you want to refresh service worker cache

Settings

- **Status** – Enable or disable the module.
- **Application Name** – define the application name.
- **Application Short Name** – set the application short name.

Web API Key – The admin can get the Web API key from the firebase in the General tab under the project setting.

The screenshot shows the Firebase console interface. On the left is a navigation sidebar with categories: Project Overview, Develop (Authentication, Cloud Firestore, Realtime Database, Storage, Hosting, Functions, Machine Learning), Quality (Crashlytics, Performance, Test Lab, App Distribution), and Extensions. The main content area displays the 'Firebase SDK snippet' with two tabs: 'CDN' (selected) and 'Config'. Below the tabs, there is a text box containing the following code snippet:

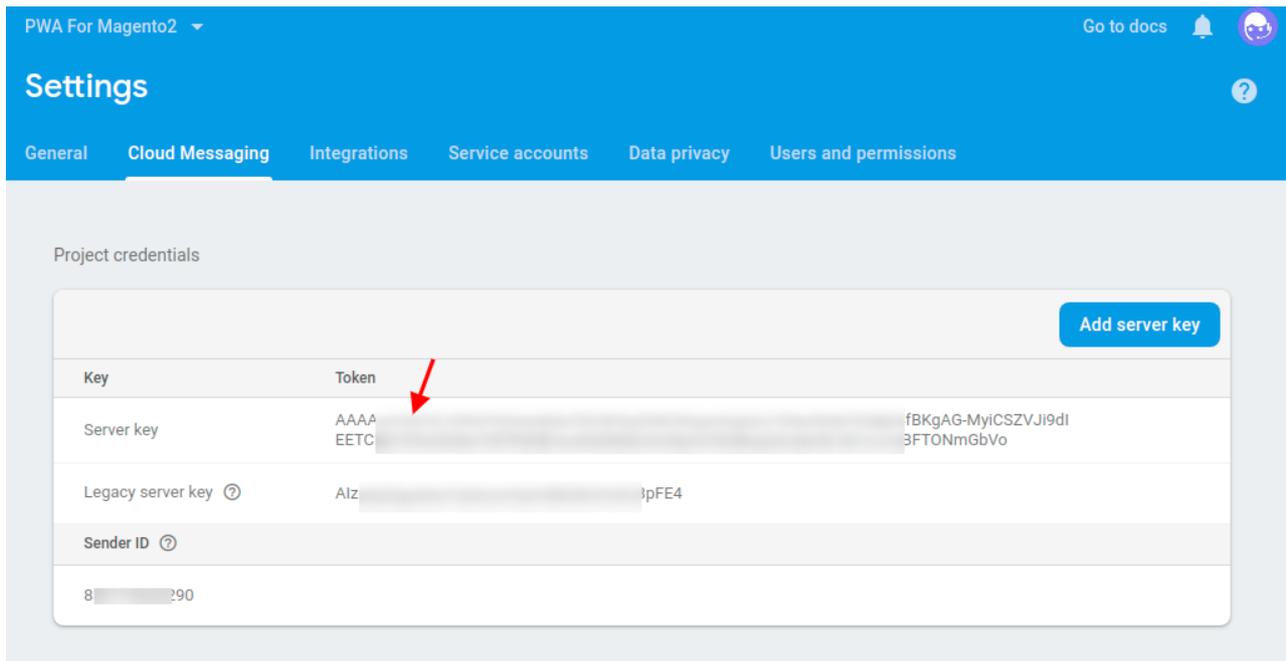
```
<!-- The core Firebase JS SDK is always required and must be listed
<script src="https://www.gstatic.com/firebasejs/7.19.0/firebase-app.

<!-- TODO: Add SDKs for Firebase products that you want to use
https://firebase.google.com/docs/web/setup#available-libraries
<script src="https://www.gstatic.com/firebasejs/7.19.0/firebase-anal

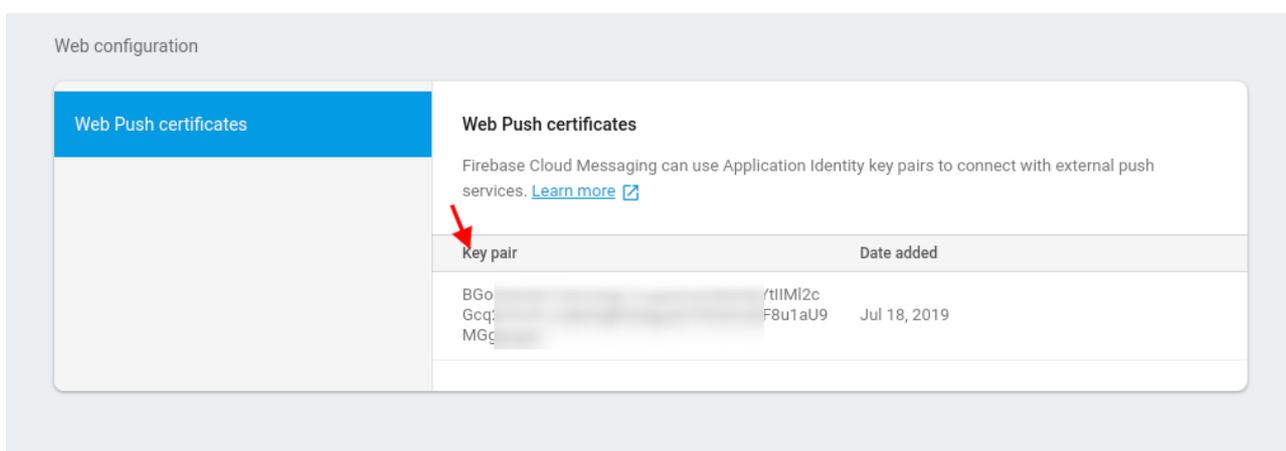
<script>
// Your web app's Firebase configuration
var firebaseConfig = {
  apiKey: "AIzaSyD...",
  authDomain: "t...app.com",
  databaseURL: "t...firebaseio.com",
  projectId: "t...011",
  storageBucket: "t...pot.com",
  messagingSenderId: "...17",
  appId: "...7790",
  measurementId: "H"
};
// Initialize Firebase
firebase.initializeApp(firebaseConfig);
firebase.analytics();
</script>
```

At the bottom of the code editor, there is a 'Remove this app' button.

- **Auth Domain FCM** – firstly insert the auth domain name here from the firebase web app.
- **FCM Database URL** – then enter the FCM database URL here
- **Project Id FCM** – after that enter the generated FCM Project ID here.
- **Storage Bucket FCM** – now put the FCM storage bucket here.
- **Messaging Sender Id** – so the next is place the sender ID here.
- **FCM App Id** – thereafter enter the FCM App ID here.
- **Server Key** – Server key which is generated using the firebase web app and it can be found in cloud messaging under the project setting.



Public Key – thereafter enter the public key here and it can be found in cloud messaging under the project setting as web push certificates as shown in the image below-



- **Measurement Id** – Now enter the measurement Id.
- **Application Icon** – now upload the application icon. Allowed file types: jpg, jpeg, gif, png

- **Splash Background Color** – then set the splash background color.
- **Theme Color** – after that select the theme background color.
- **Select Orientation** – Select orientation of PWA as Any, Natural, Landscape, and Portrait.
- **Select Display** – Select the display type for PWA Fullscreen, Standalone, Minimal UI, and Browser.
- **IOS Splash Screen Image** – Upload the Splash Screen Image for iOS. Allowed file types: jpg, jpeg, gif, png, and size must be 2048×2732
- **Service Worker Version** – Change the version number when want to refresh the service worker cache.

Push Notification

Admin can manage the Push Notifications by going to **PWA > Manage PWA Notifications**. From here admin can add/edit or delete any push notification. Admin can also enable or disable any push notification and can ‘Push’ the notification message by clicking on **Send**.

The screenshot shows the 'Manage Push Notification' interface. At the top right, there is a notification bell icon and a user profile icon labeled 'Admin'. Below this is a red button labeled 'New Push Notification Message'. The main area contains a table with the following data:

ID	Title	Body	Target URL	Status	Created	Modified	Action	Push Notification
4	20% Off on Bags	Biggest Sale on Bags	https://example.com	Enabled	Aug 13, 2019 6:29:44 AM	Aug 24, 2019 2:46:43 PM	Edit	Send
3	70% Off	70% Off on Tshirts	https://example.com	Enabled	Aug 8, 2019 11:03:19 AM	Aug 24, 2019 2:46:43 PM	Edit	Send

At the bottom of the page, there is a footer with the text: 'Copyright © 2019 Magento Commerce Inc. All rights reserved.' and 'Magento ver. 2.3.2'. There are also links for 'Account Activity' and 'Report an Issue'.

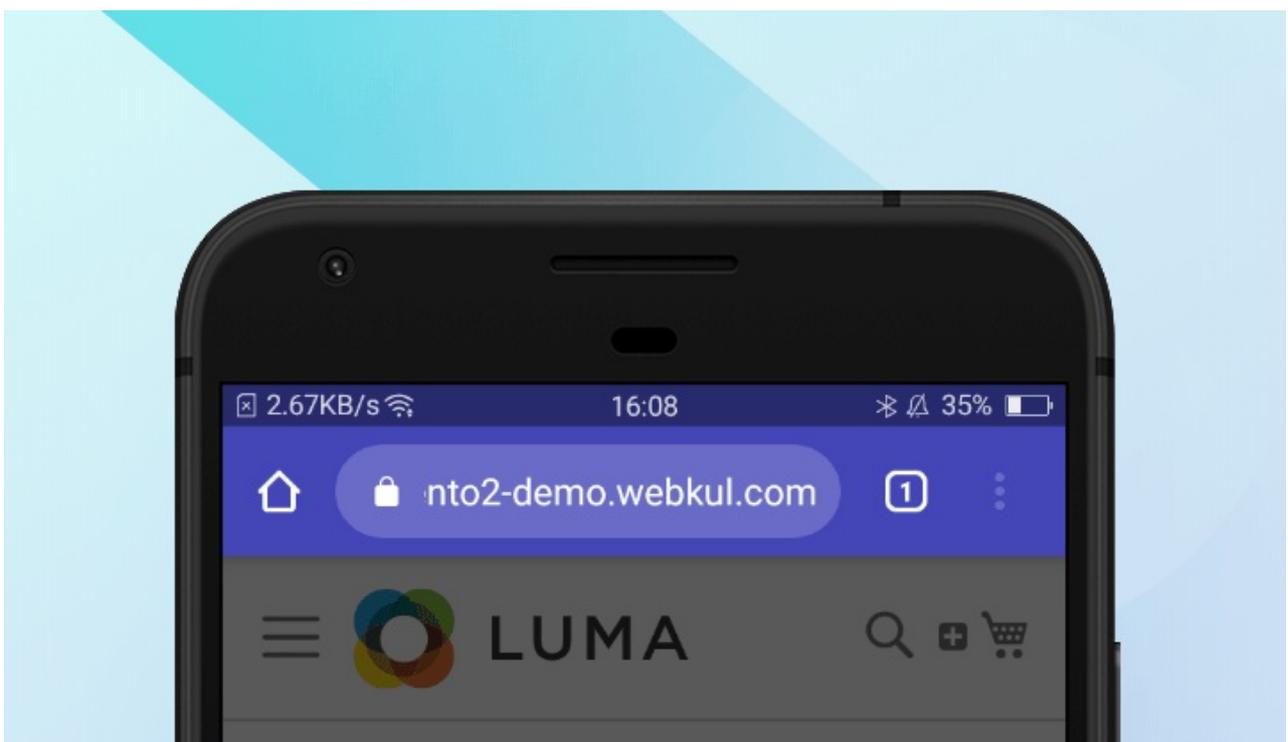
For adding or editing a Push Notification Message, the admin has to provide the Title, Message Body, Target URL, and the message icon image.

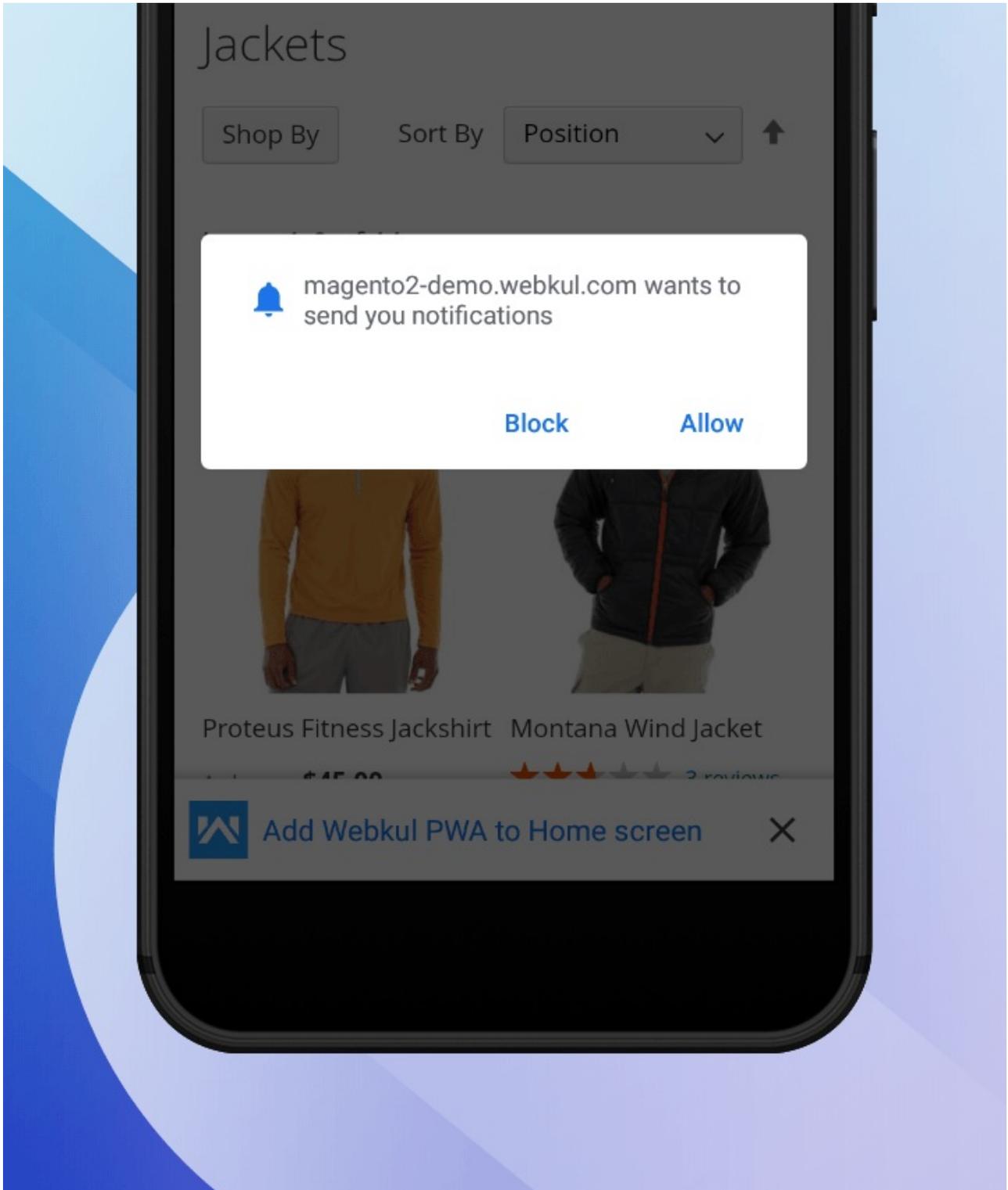
How A Customer Can Use Progressive Web Application for Magento2

A customer can use the Progressive Web Application in both Android and iOS devices.

If the customer is using an Android device:

When a customer visits the website on a browser of the mobile device, then he will see pop-up requesting permission to send Push Notification to the customer.





When a Push Notification is sent, it can be seen as the screenshot shown below.



6:45 pm | Thu 18 July



Chrome magento2user.webkul.com | 6:45 pm

Summer Sale
Shop NOW



GO TO THE SITE

SETTINGS

Android system Transferring media files via USB

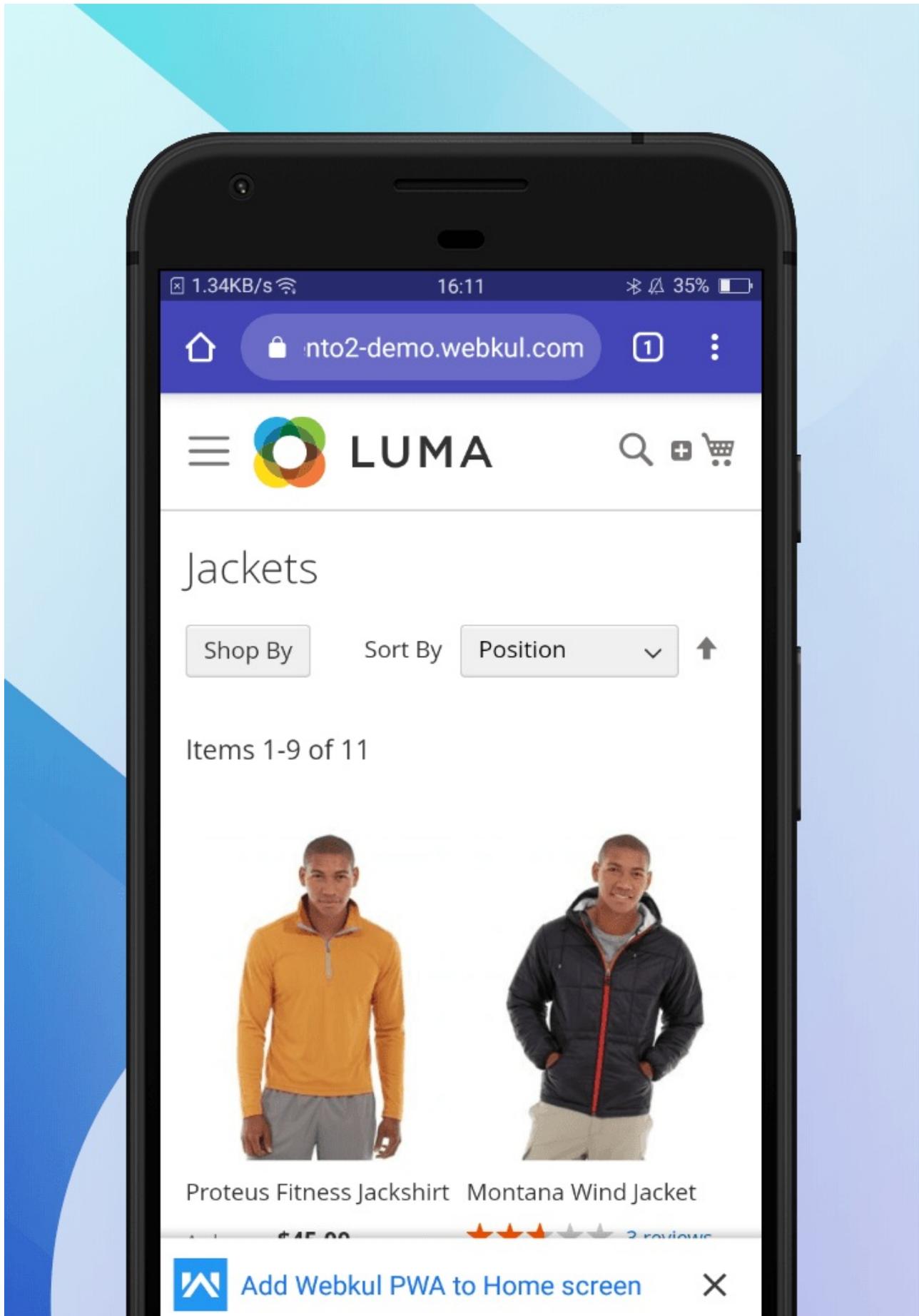
NOTIFICATION SETTINGS

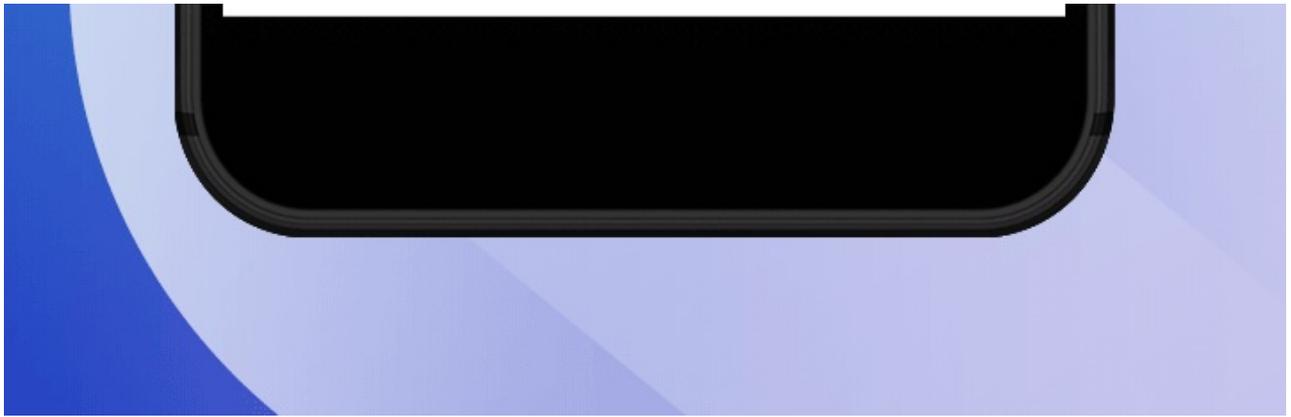
CLEAR

A grid of application icons on an Android phone. The icons include: Chrome, Delhi-NCR Metro, Digital Impulse R..., MyJio, YouTube, Voice Recorder, Abt. WeKul.P PT, IRGTC Rail Connect, Google Pay, DLFM Radio, Practo, Google Pay, LinkedIn, OlaCabs, Phone, Contacts, Messages, Internet, and Camera. The background of the app drawer is a dark image of a person walking on a wooden bridge over water.

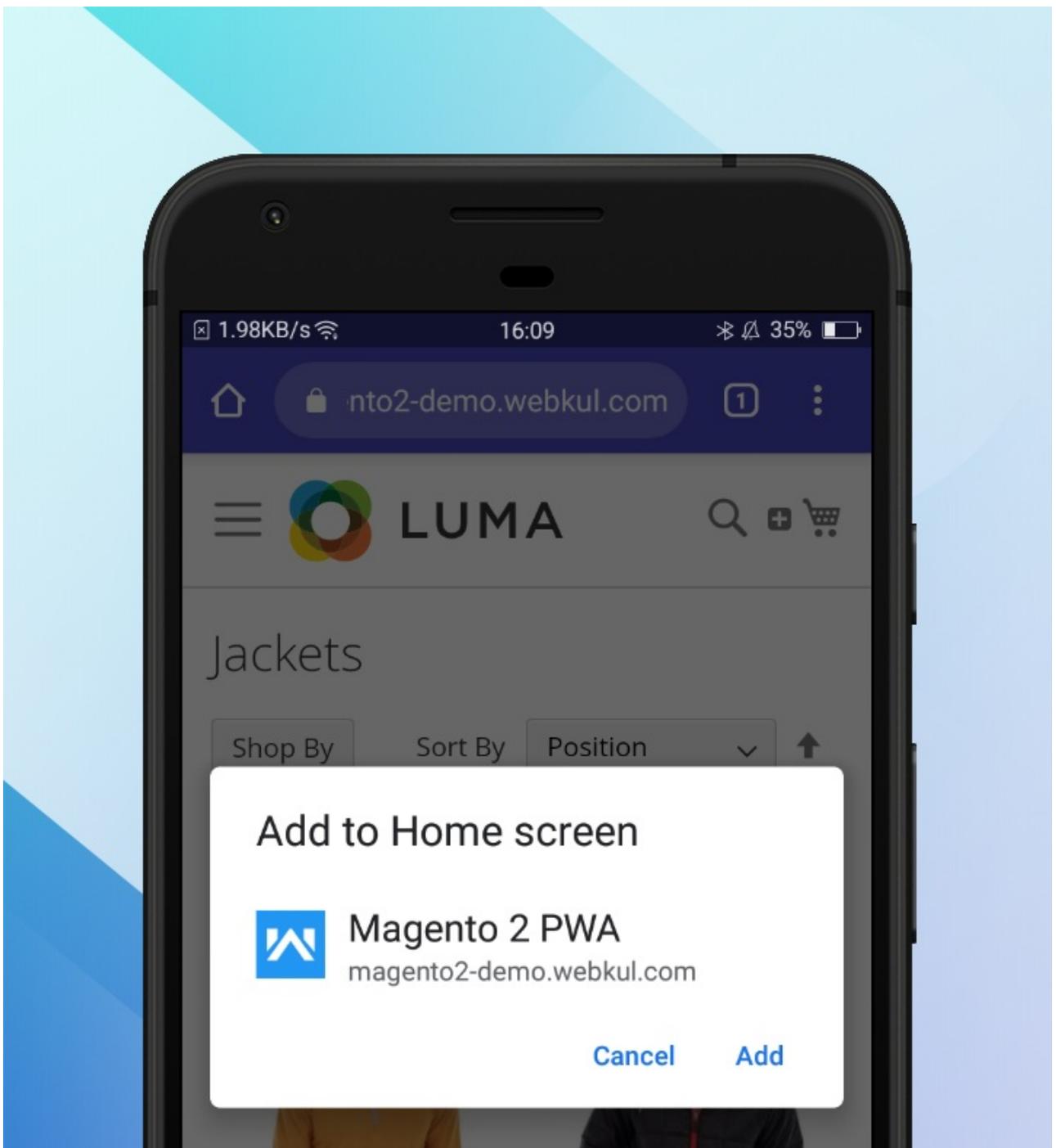
Vodafone IN | Idea

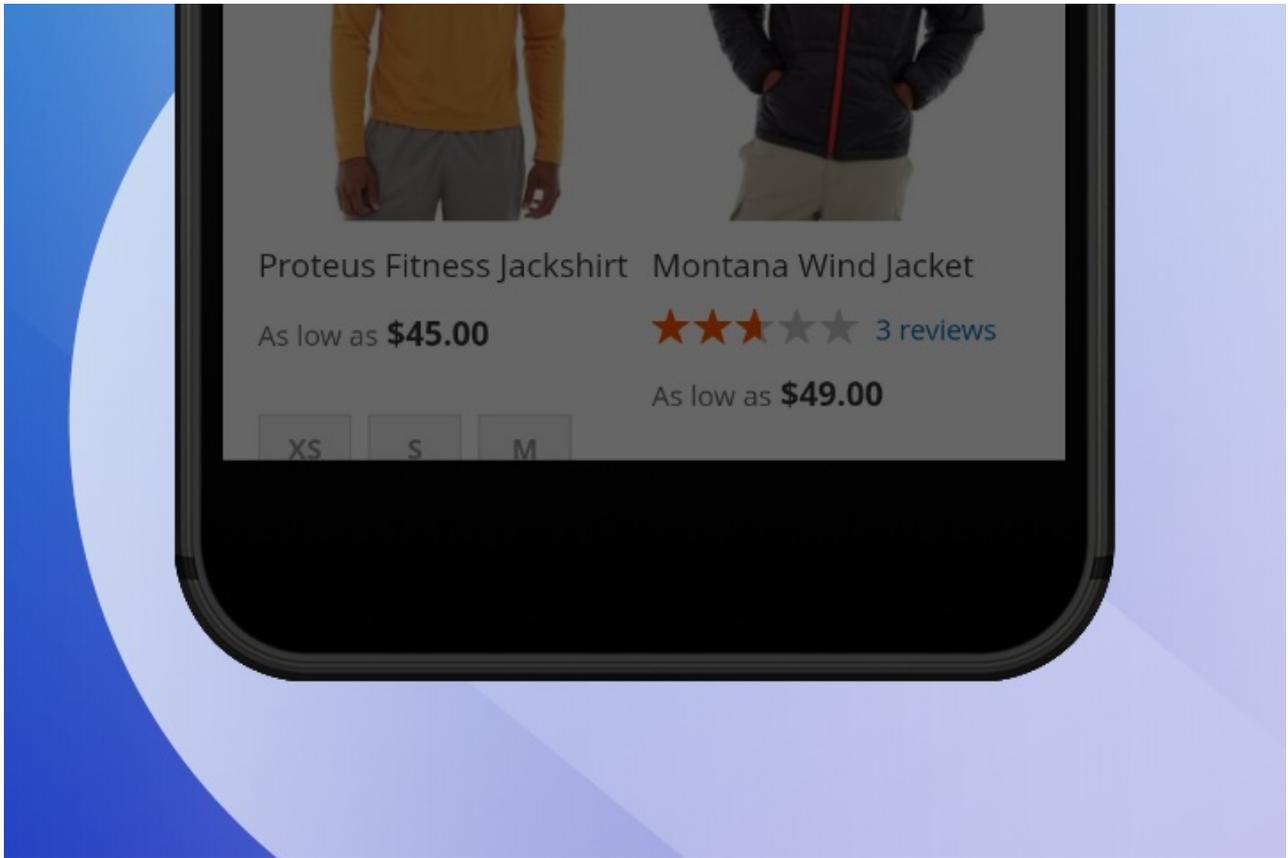
A customer can open the website in a browser of the mobile device. Here we have shown the working on chrome. User can see the **Add to home screen button (Plus Sign)** near to the cart, and on the bottom of the page as shown in the image below-





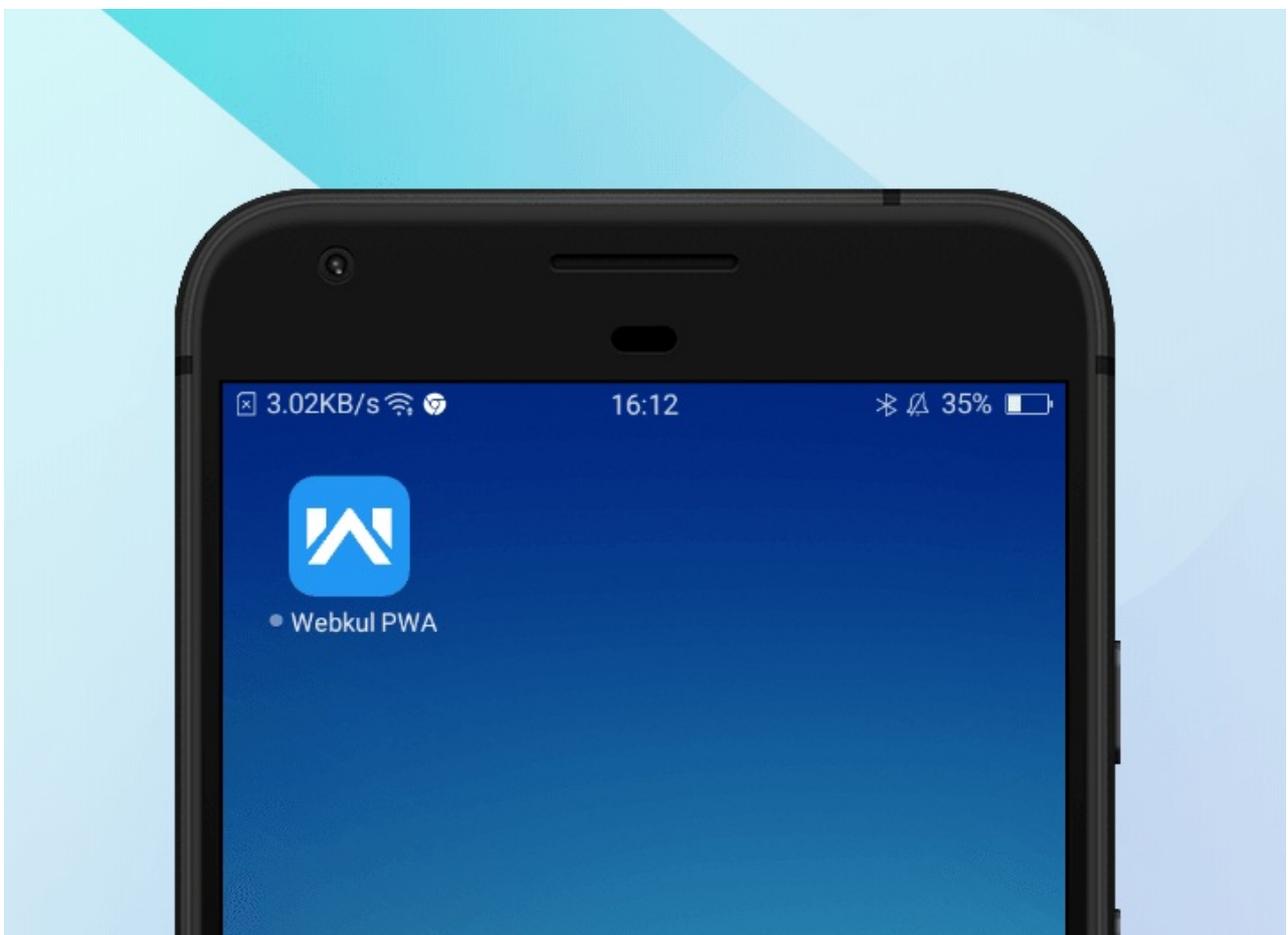
The customer can click on the “**Plus Sign**” button near to the cart or click on the bottom of the webpage to add the app to the home screen. Now a pop window will appear as shown in the image below –





Application Icon on Homescreen

Now the user can see the application icon on the home screen of the mobile like this. A user can click on the application to launch it.





After clicking on the application, the application launches with a splash screen. The splash screen shows the application name and icon. The application launches in the same way as the native app.





After the splash screen, a user can see the home screen of the application. The customer can also see all the available products using the PWA app as shown in the image below –

Jackets

Shop By Sort By Position ↑

Items 1-9 of 11



Proteus Fitness Jackshirt

As low as **\$45.00**

XS S M
L XL



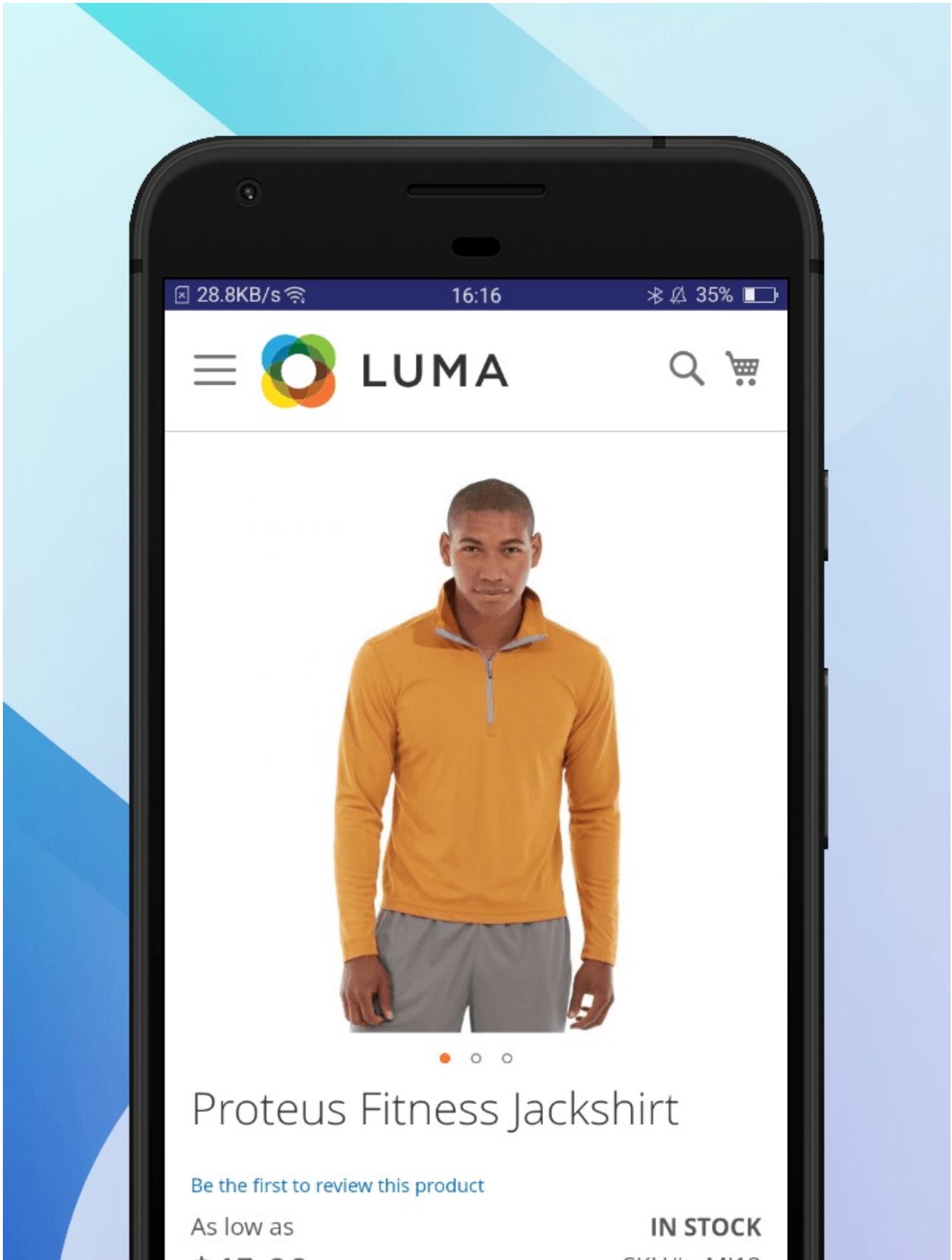
Montana Wind Jacket

★★★★☆ 3 reviews

As low as **\$49.00**

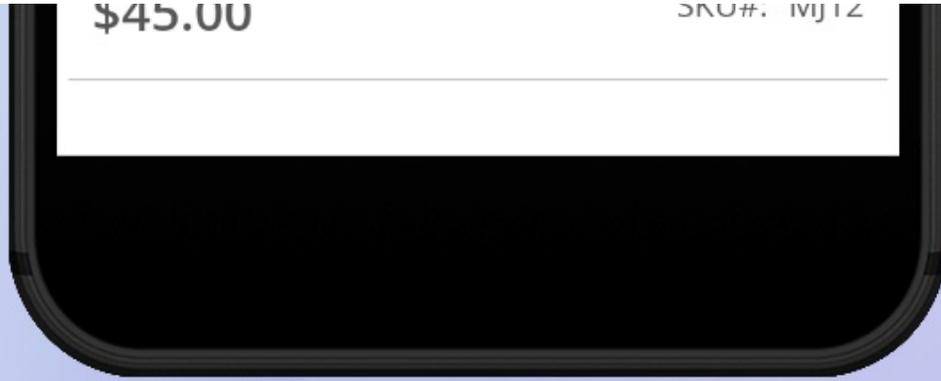
XS S M
L XL

The customers can click on the product and add the product to the cart same as in the native app.



\$45.00

SKU#: IWJ12



1.48KB/s

16:16

35%

Size

- XS
- S
- M
- L
- XL

Color



Qty

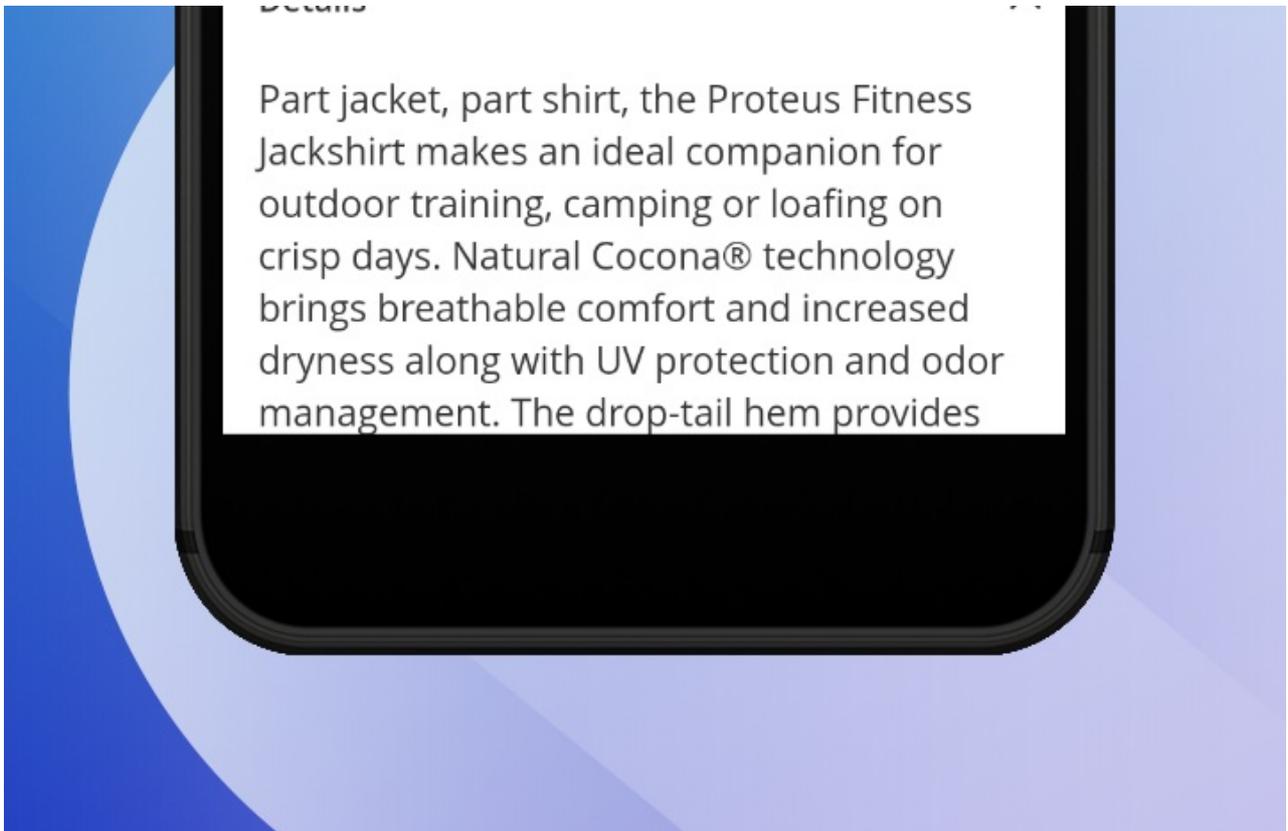
1

Add to Cart

ADD TO WISH LIST EMAIL

Details

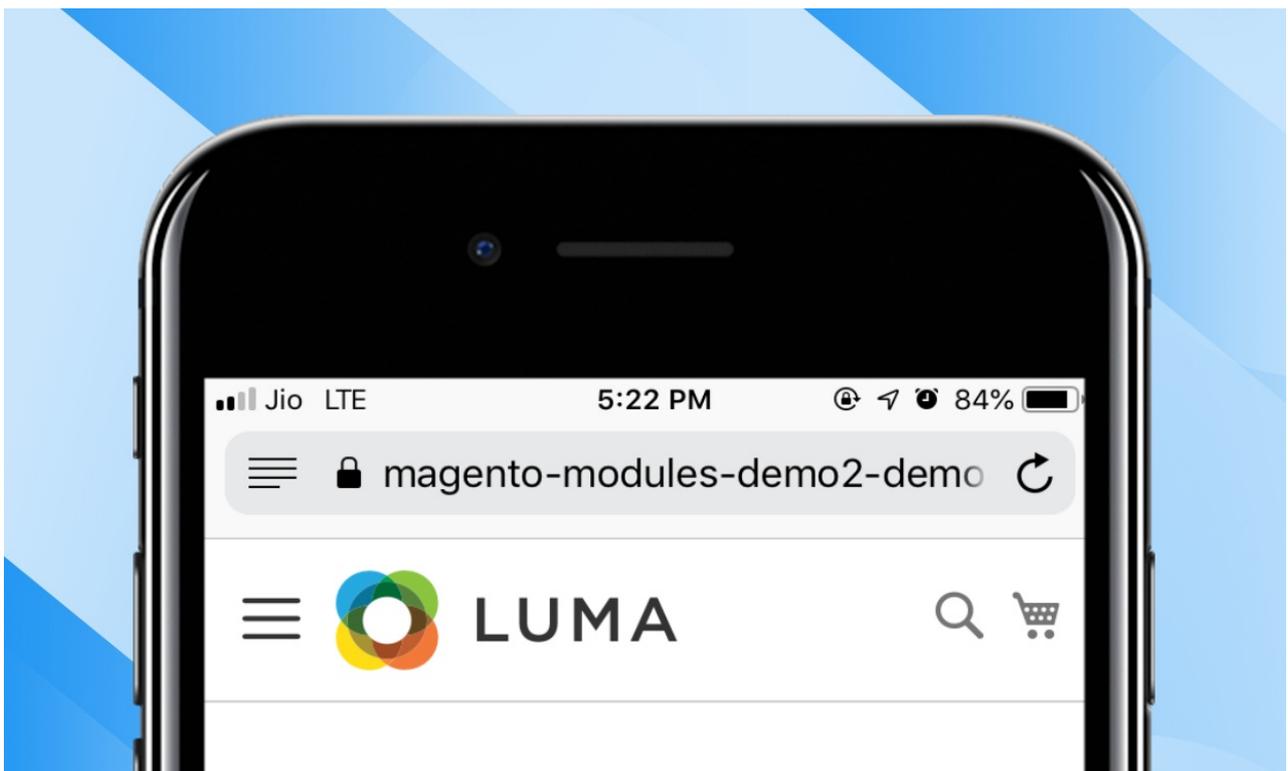


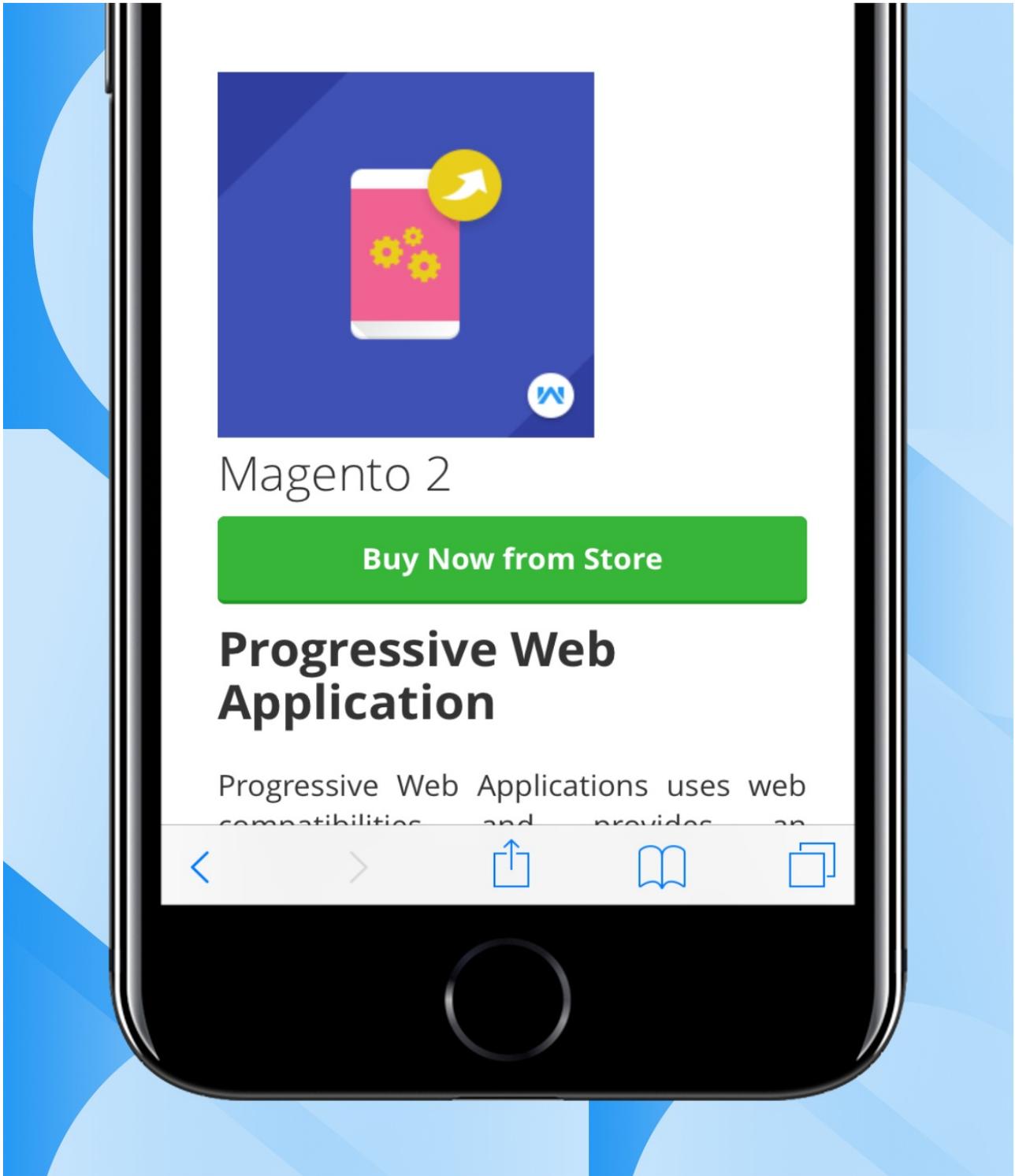


After adding the product to the cart, the customer can process further to checkout and then complete the order.

If the customer is using an iOS device:

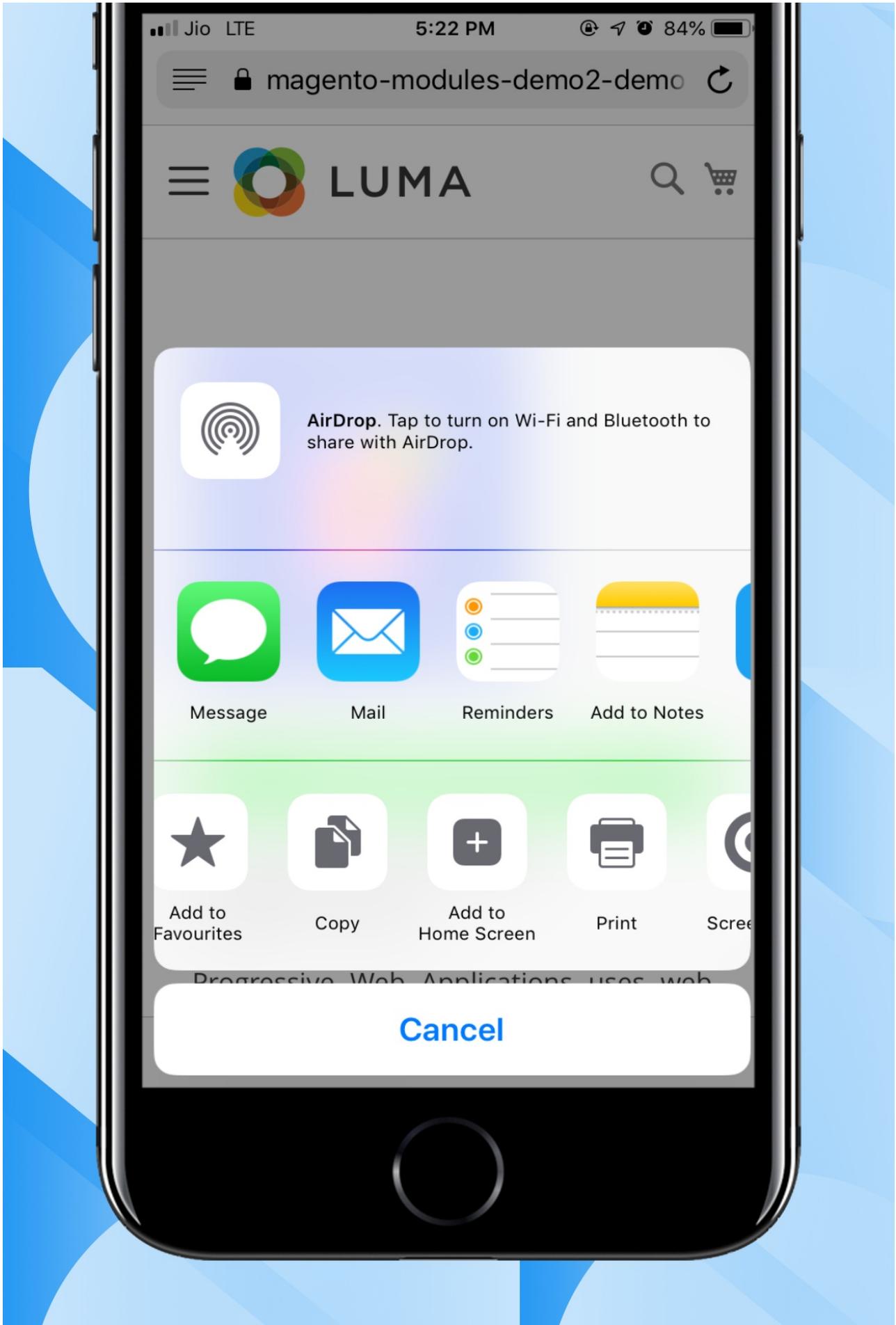
A customer can open the website in a browser of the mobile device. Here we have shown the working on Safari. From here customers can click on the menu icon of Safari to add the application on the home screen.



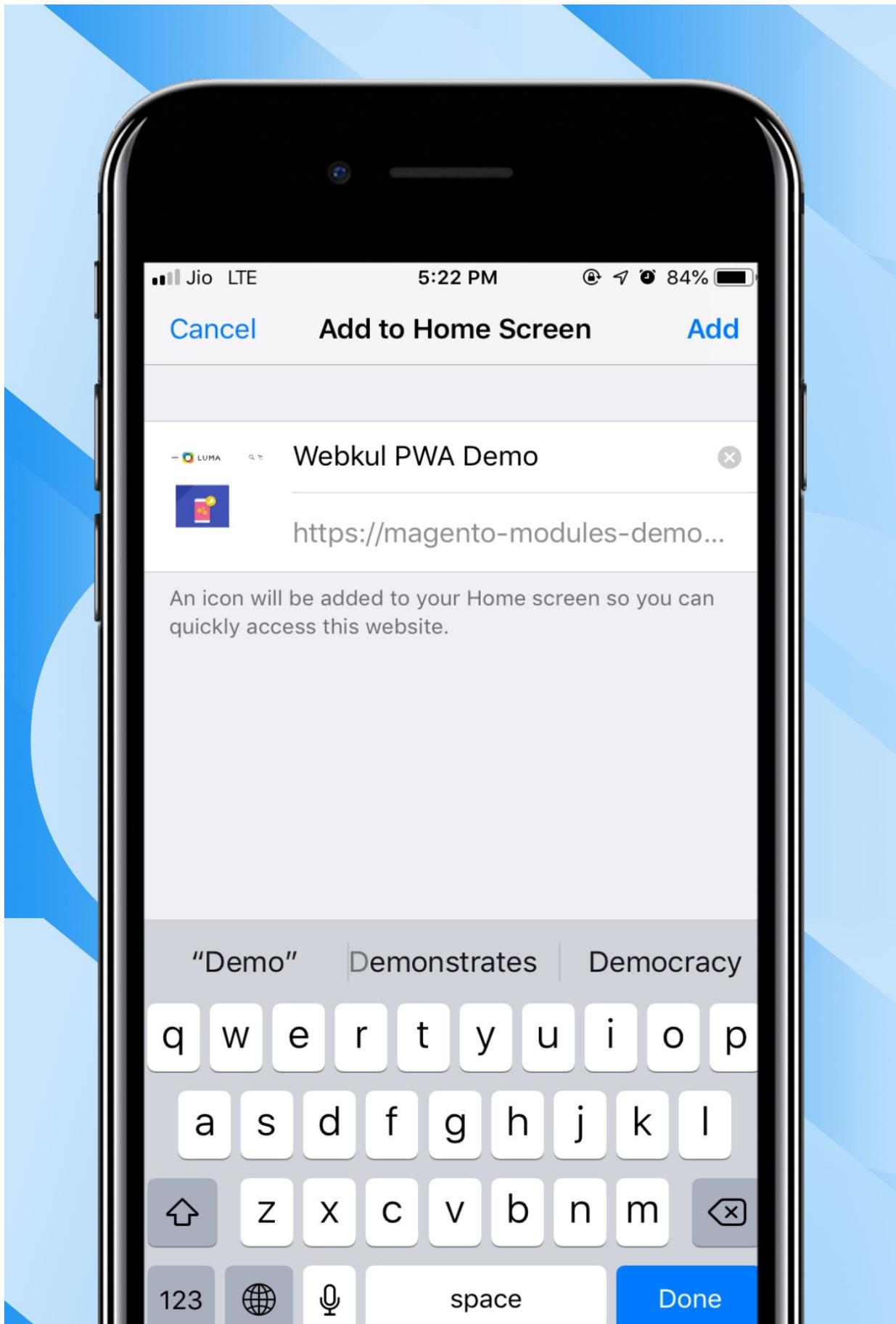


From the Safari menu, a user can select the 'Add to home screen' option to add the progressive web application to the home screen.



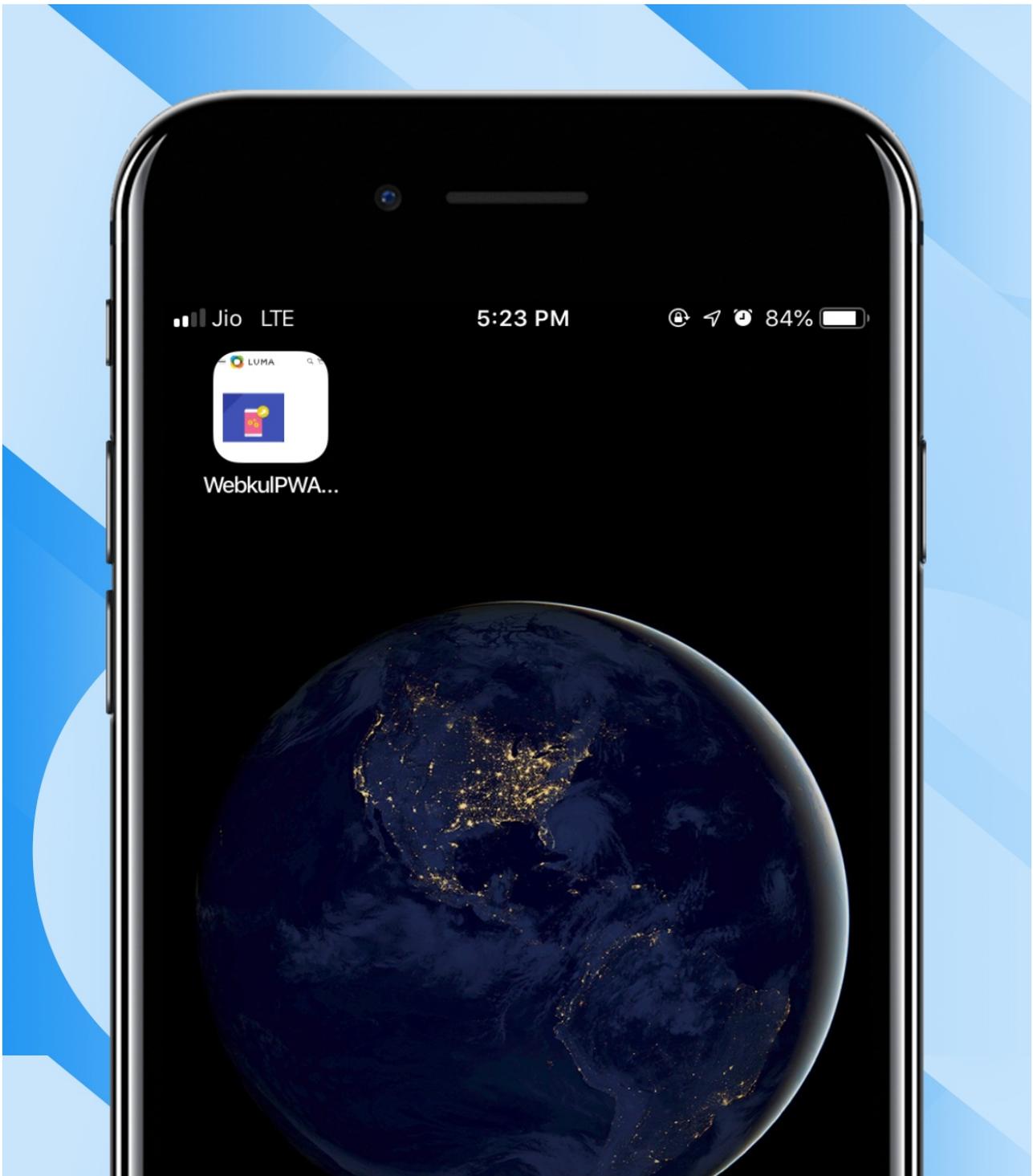


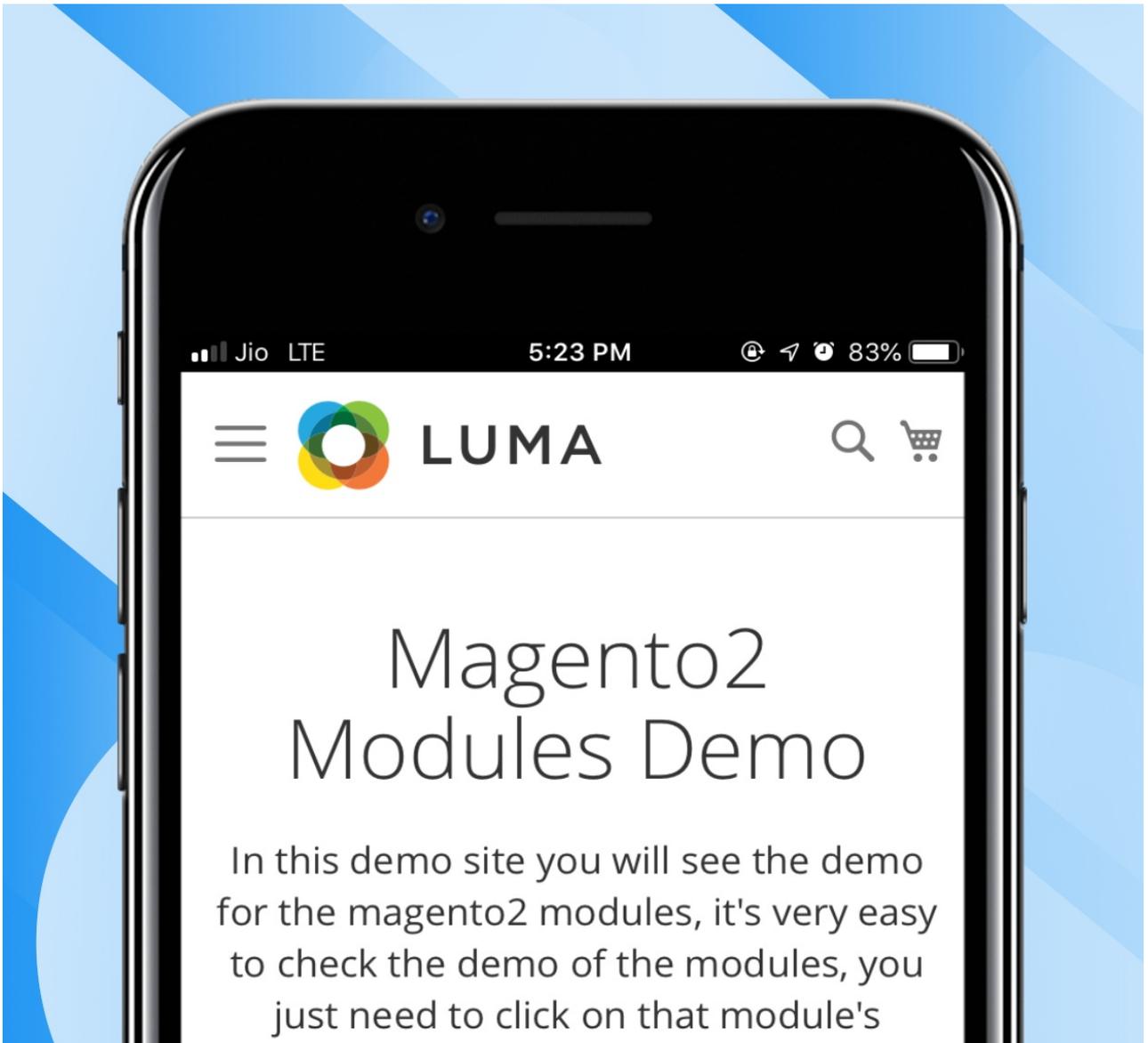
Now a pop window will appear to add the name of the progressive web application like this.



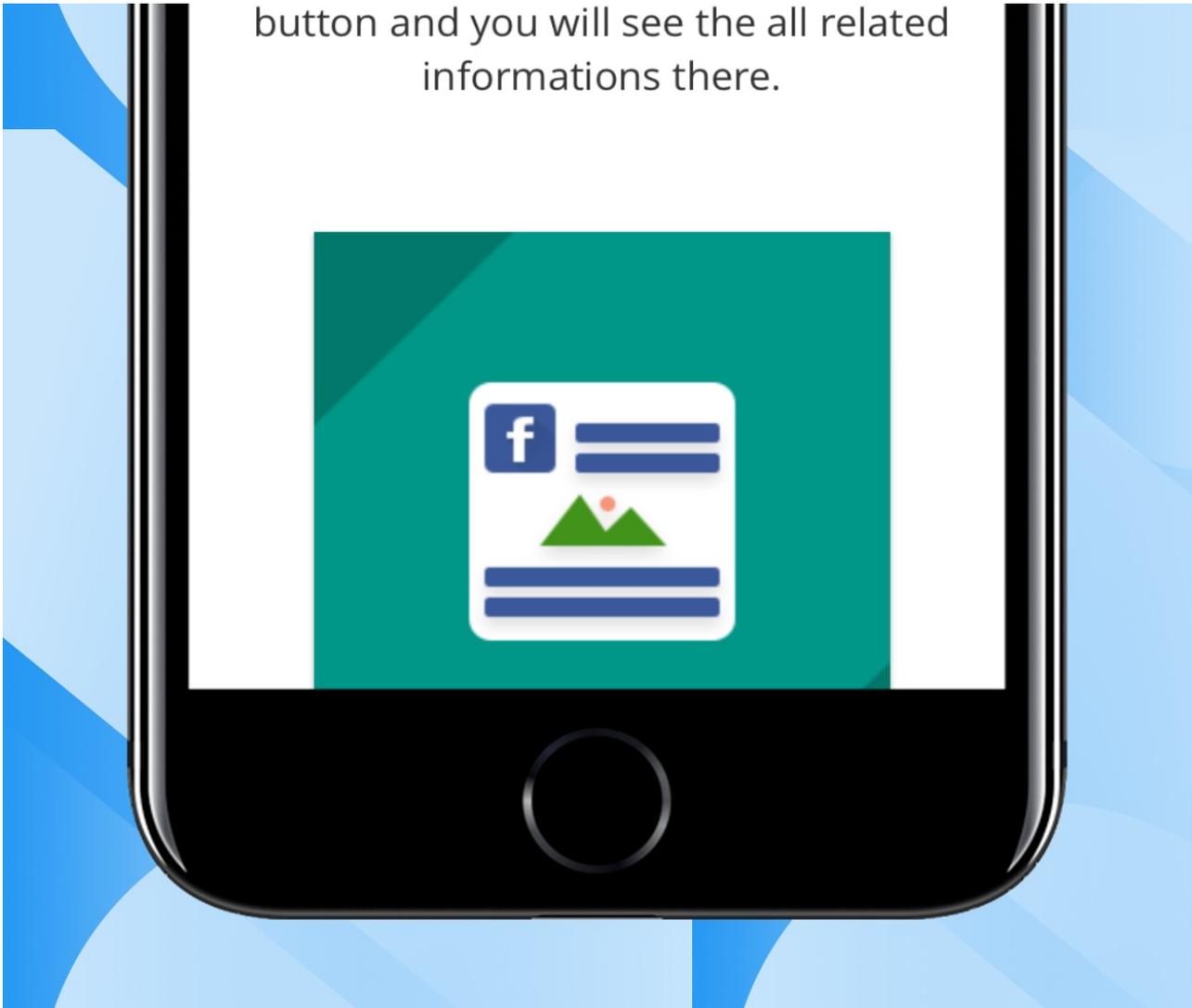


Now the user can see the application icon on the home screen of the mobile like this. A user can click on the application to launch it.





button and you will see the all related informations there.



Support

Thus, that's all for the module, still, have any issue feel free to add a ticket and let us know your views to make the module better <http://webkul.uvdesk.com/>