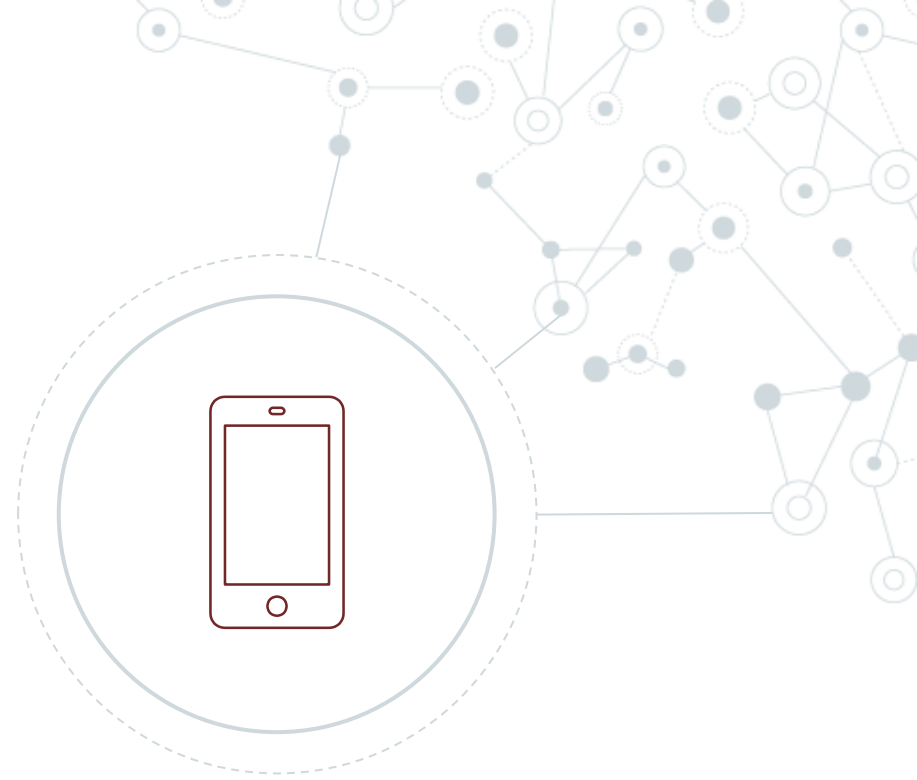


Wireframe Prototipi e Mockup



Differenze

WireFrame

- Statico
- Solo contenuti e scheletro

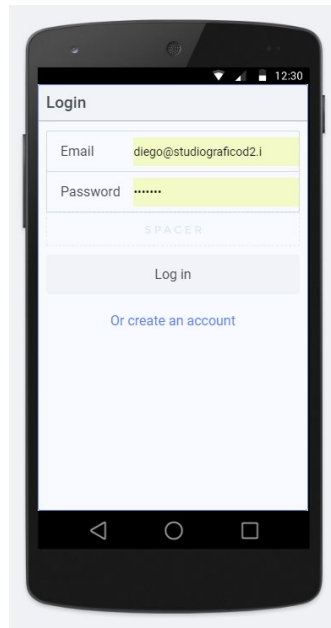
<https://balsamiq.com/>



Prototipo

- Interattivo
- Grafica ad alto livello
- Vicino al prodotto finale

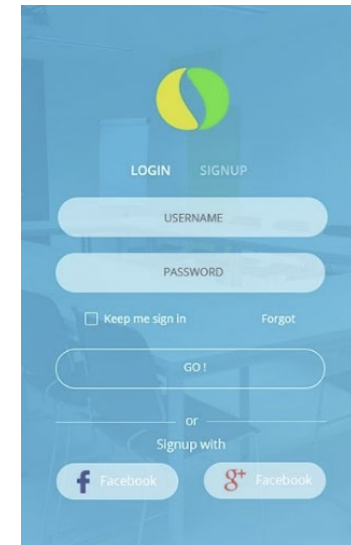
<https://creator.ionic.io>



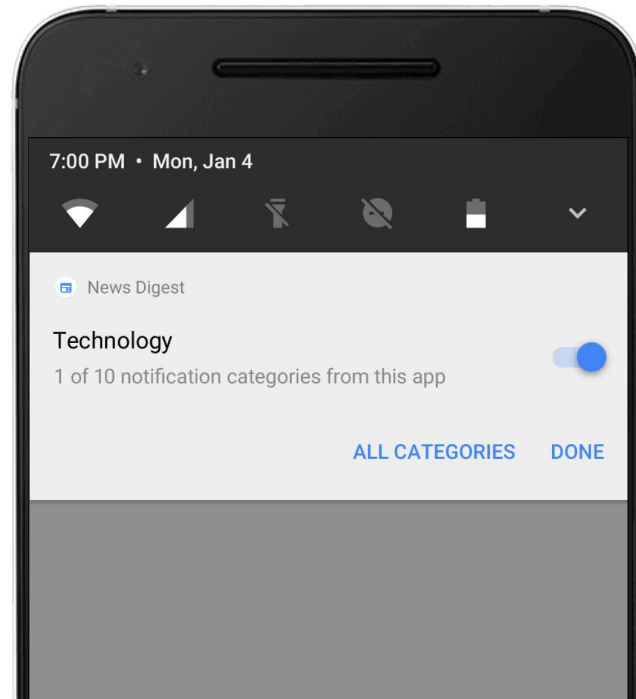
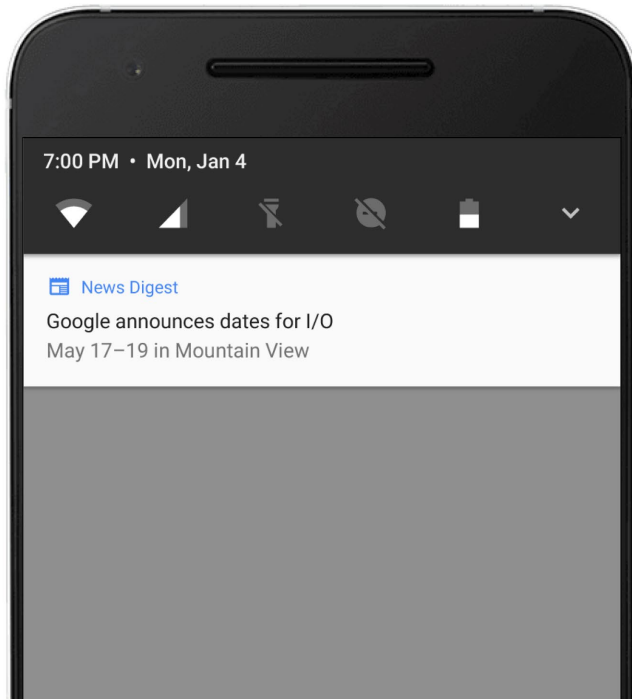
Mockup

- Statico
- Grafica alto livello

Adobe Photoshop



Push Notification



<https://ionicframework.com/docs/native/push>

<https://knowledge.opsview.com/docs/getting-started-with-push>

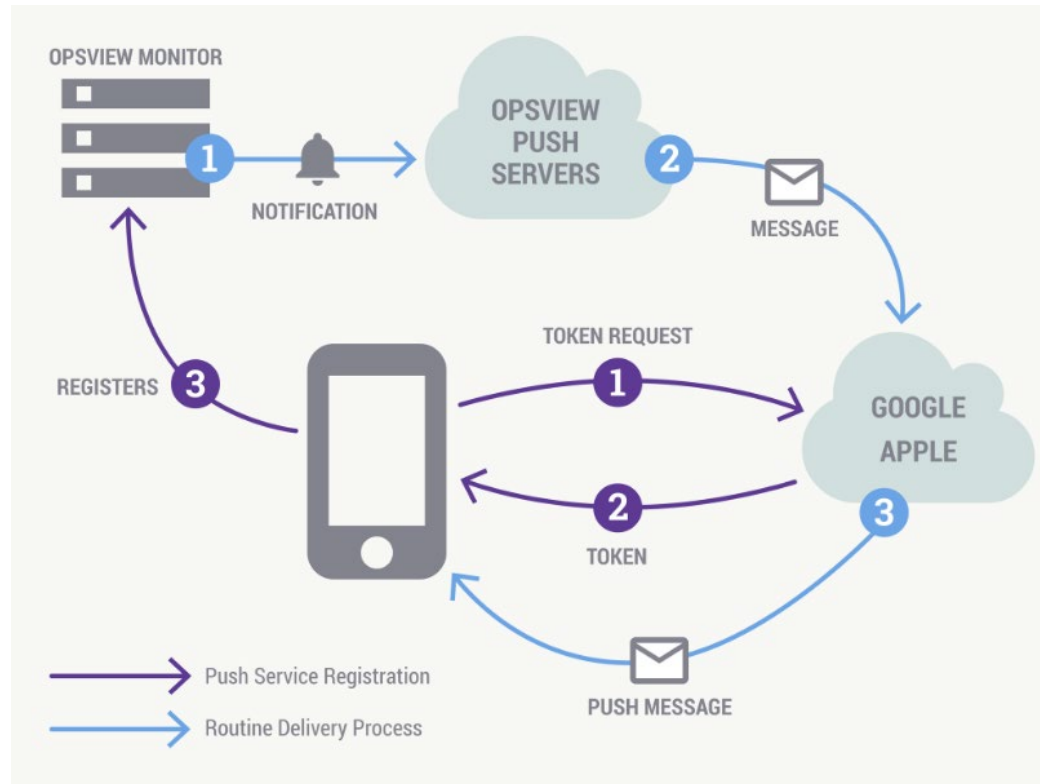
Push Notification

Push Notification Terms

- **Notification** – a message displayed to the user outside of the app's normal UI (i.e., the browser)
- **Push Message** – a message sent from the server to the client
- **Push Notification** – a notification created in response to a push message
- **Notifications API** – an interface used to configure and display notifications to the user
- **Push API** – an interface used to subscribe your app to a push service and receive push messages in the service worker
- **Web Push** – an informal term referring to the process or components involved in the process of pushing messages from a server to a client on the web
- **Push Service** – a system for routing push messages from a server to a client. Each browser implements its own push service.
- **Web Push Protocol** – describes how an application server or user agent interacts with a push service

<https://developers.google.com/web/ilt/pwa/introduction-to-push-notifications>

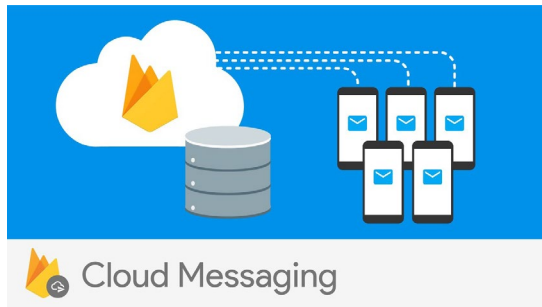
Push Service



<https://ionicframework.com/docs/native/push>

<https://knowledge.opsview.com/docs/getting-started-with-push>

Esempio di notifiche con Ionic e FireBase



Completamente free ma:

Maximum message rate to a single device

You can send up to 240 messages/minute and 5,000 messages/hour to a single device. This high threshold is meant to allow for short term bursts of traffic, such as when users are interacting rapidly over chat. This limit prevents errors in sending logic from inadvertently draining the battery on a device.

! Caution: Do not routinely send messages near this maximum rate. This could waste end users' resources, and your app may be marked as abusive.

Upstream message limit

We limit upstream messages at 1,500,000/minute per project to avoid overloading upstream destination servers.

We limit upstream messages per device at 1,000/minute to protect against battery drain from bad app behavior.

<https://www.freecodecamp.org/news/how-to-get-push-notifications-working-with-ionic-4-and-firebase-ad87cc92394e/>

<https://capacitor.ionicframework.com/docs/guides/push-notifications-firebase/>

Esempio di notifiche con FireBase per servizi backend

```
Node.js  Java  Python  Go  C#  REST

// This registration token comes from the client FCM SDKs.
var registrationToken = 'YOUR_REGISTRATION_TOKEN';

var message = {
  data: {
    score: '850',
    time: '2:45'
  },
  token: registrationToken
};

// Send a message to the device corresponding to the provided
// registration token.
admin.messaging().send(message)
  .then((response) => {
    // Response is a message ID string.
    console.log('Successfully sent message:', response);
  })
  .catch((error) => {
    console.log('Error sending message:', error);
  });
```

<https://firebase.google.com/docs/admin/setup>

<https://firebase.google.com/docs/cloud-messaging/send-message>