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AUTH & DATABASE

Firestore

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HELLO WORLD!

My name is Christina (:

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I'm all about:

- Icecream
- Community Events
- Bleeding Edge Technology



1

USER INTERFACE



2

EXPERIENCE DESIGN



3

VIRTUAL/AUGMENTED REALITY



4

BUILD FOR MOBILE



5

MANAGE STATE



6

AUTH & DATABASE





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Firestore

WHAT is it ?

HOW can I use it ?

WHY should I care ?



Why should
I care about
REALTIME DATA ?



Need
Demand

1. Up to date information
2. Interaction to maintain engagement (UX)



NOT New
Need
Demand

1. Up to date information
2. Interaction to maintain engagement (UX)



Innovation

TCP/UDP

INTERNET

Innovation

```
TALK: (Channel 1)

$$$ Dr. Wool          woolley / cerl          1-28
    Okay, that's better.

    I was hoping Papa Del's is still around - it was the best

$$$ brian             brian dear / uofdel      1-25
    is garcia's still in business?

$$$ Δ                peltz / Δ                5-16
    I haven't eaten at delz for Δ while
    it's better than garcias tho.

$$$ Loren             platte / uni            1-18
    «grin» and «sigh»

$$$ Doug              dub / ngineer           1-8
    hummm
```

TCP/UDP

INTERNET

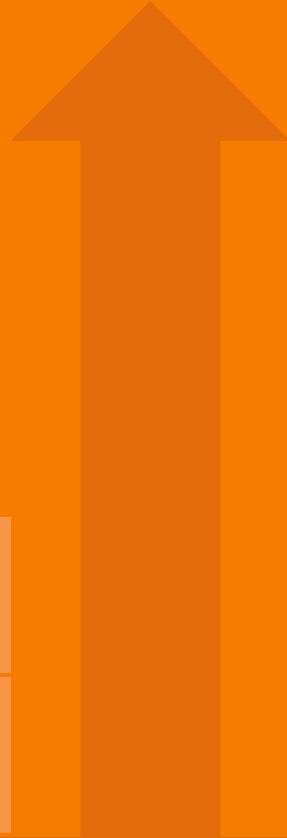
Innovation

EventSource

HTTP

TCP/UDP

INTERNET



Innovation

EventSource

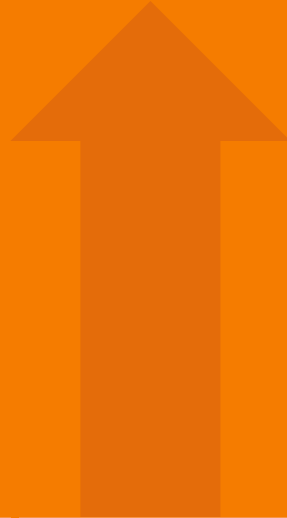
HTTP

TCP/UDP

INTERNET



Innovation



EventSource

HTTP

WebSocket

TCP/UDP

INTERNET



EventSource

HTTP

WebSocket

TCP/UDP

INTERNET

Innovation



Simple Messaging

EventSource

WebSocket

HTTP

TCP/UDP

INTERNET

Innovation

Simple Messaging

E

Client

```
var ws = new WebSocket('ws://localhost/');  
  
ws.onmessage = function(evt) {  
  var data = JSON.parse(evt.data);  
  
  if(data.action) {  
    // ^5  
  }  
  
  else if(data.peerId) {  
    var connectTo = data.peerId;  
  }  
};
```

Server

```
// server  
server.on('connection', function(socket){  
  
  socket.send(JSON.stringify({action: 'high=5'}));  
});
```


Innovation

Firebase

Simple Messaging

EventSource

WebSocket

HTTP

TCP/UDP

INTERNET



Real Time Revolution

“

I'm not sure I believe that there is such a thing as “realtime apps” any more. Apps either update instantly and smoothly, or they appear broken. I feel that “realtime” as a feature has moved down the Kano graph. It is much more of an expectation than an “exciter”.

”

~Max Williams, CEO Pusher



Real Time is an
expectation!

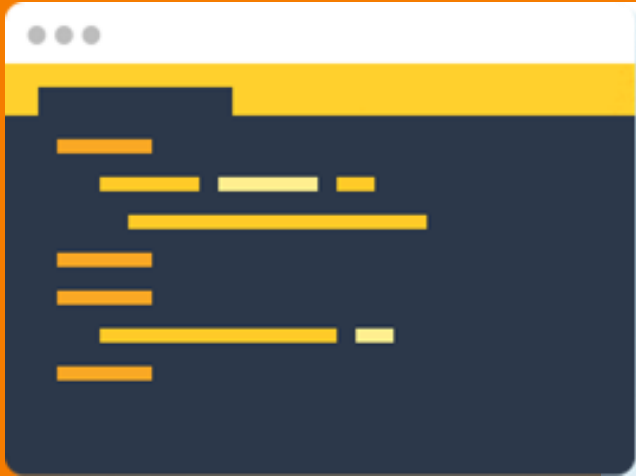


What does
FIREBASE
mean anyway?

Firebase?

an area in a war zone in which
artillery can be massed to provide
heavy firepower in support of other
military units.





Develop
better Apps



Grow
your Audience



Firestore is a collection of cross-platform tools to develop & test your app, grow & engage your users.



HOW do I use
Firebase?

Let's make a game!

Requirements:

Players can log in to save their music boxes

Players can create new music boxes

Changes are automatically saved

Players can access their saved music boxes

Only the player that created the box can write to it, but anyone can read them

Authentication:

Players can log in
to save their game

Adding data:

Players can create
new musical boxes

Updating data:

Updates should
automatically be saved
to the database

Data Retrieval:

Players can access
saved music boxes

Data Security Rules:

Only a logged in player
can write to their data



To use Firebase:

- 1) Setup the firebase database
- 2) Use the firebase clientside library to listen to db etc



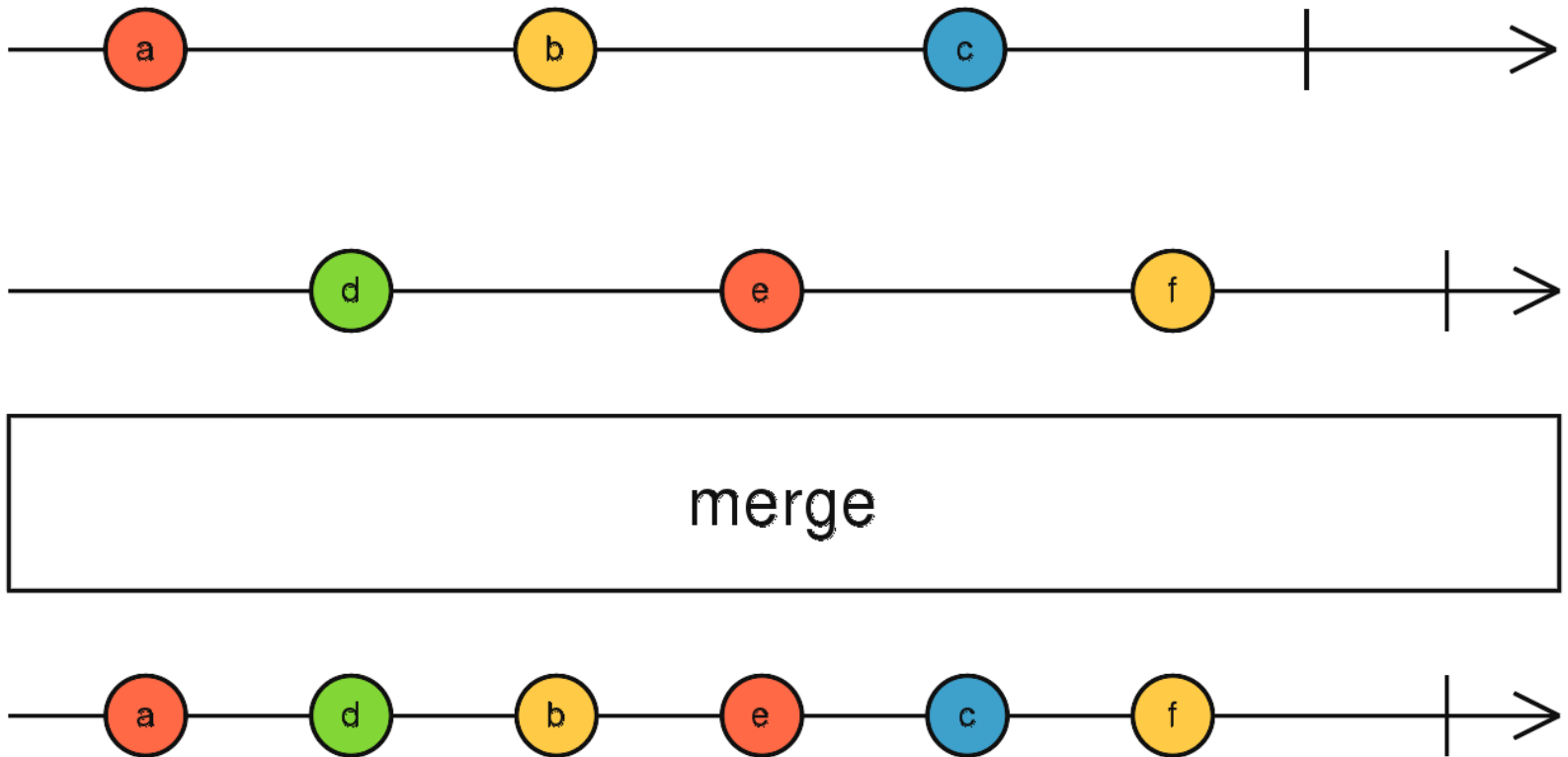
HOW
can I use
AngularFire?

QUICK REVIEW

Observables

The Observable object represents a push based collection

The Observer and Observable interfaces provide a generalized mechanism for push-based notification, also known as the observer design pattern. The Observable object represents the object that sends notifications (the provider); the Observer object represents the class that receives them (the observer).



```
1▼ const sourceOne = Rx.Observable.create(observer => {  
2    observer.onNext(1);  
3    observer.onNext(2);  
4    observer.onNext(3);  
5  })  
6  sourceOne.subscribe(val => console.log('SourceOne:', val));  
7
```

```
8  
9  const sourceTwo = Rx.Observable.interval(2000);  
10 sourceTwo.subscribe(val => console.log('SourceTwo:', val));
```

```
1▼ const {Component} = ng.core;
2▼ const {bootstrap} = ng.platform.browser;
3
4▼ @Component({
5    selector: 'my-app',
6    template: `
7        <section>
8            <h1>{{number$ | async}}</h1>
9        </section>
10    `
11 })
12▼ class AppComponent {
13▼     constructor(){
14         this.number$ = Rx.Observable.interval(1000);
15     }
16 }
17
18 bootstrap(AppComponent);
19
```




HOW
can I use
AngularFire?



To use AngularFire:

- 1) `npm install angularfire2`
- 2) Import/setup your project
- 3) `angularFireDatabase.list('item')`
- 4) `angularFireAuth.authState`



HOW
can I use
ReactFirestore?



To use ReactFirestore:

- 1) npm install react-firebase
- 2) Import/setup your project
- 3) Connect((props, ref) =>...)



WHY
should I use
Firebase?



Firestore is awesome because:

- Easy user Authentication
- Real time Database
- Speeds up Development
- ...



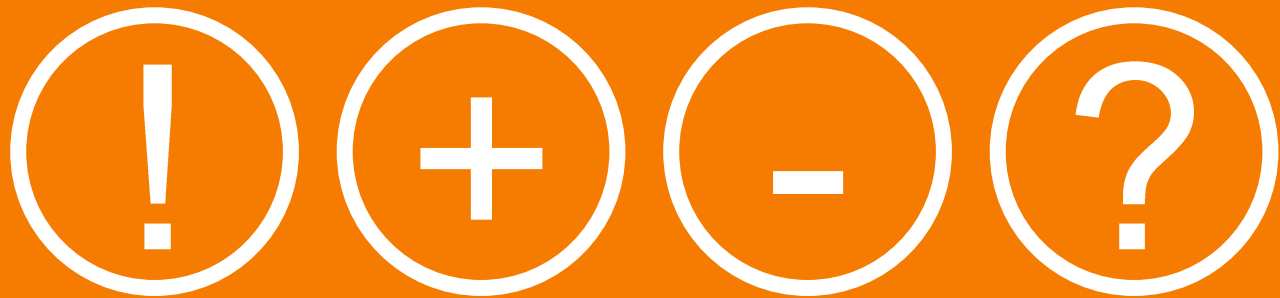
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THANK YOU!





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