

## Thinking Reactive with RxJS

### Excercise

#### Starting Point

Here is our starting point:

```
const Observable = Rx.Observable;

const startButton = document.querySelector('#start');
const stopButton = document.querySelector('#stop');
const resetButton = document.querySelector('#reset');

const start$ = Observable.fromEvent(startButton, 'click');
const interval$ = Observable.interval(1000);
const stop$ = Observable.fromEvent(stopButton, 'click');
const reset$ = Observable.fromEvent(resetButton, 'click');

const data = {count:0};
const inc = (acc)=> ({count: acc.count + 1});
const reset = (acc)=> data;

const intervalThatStops$ = interval$
    .takeUntil(stop$);

const incOrReset$ = Observable.merge(
    intervalThatStops$.mapTo(inc),
    reset$.mapTo(reset)
);

start$
    .switchMapTo(incOrReset$)
    .startWith(data)
    .scan((acc, curr)=> curr(acc))
    .subscribe(x=> console.log(x));
```

## Your Challenge – Faster Timers

- Add buttons: Half and Quarter
- When they are clicked timer should start at matching speed (Second, Half a second or Quarter of a second)
- Hints
  - Use [Observable.merge](#) to start the 3 starter streams
  - Use [mapTo](#) to map those clicks to a milli second value
  - Change from [switchMapTo](#) to [switchMap](#) so you get the time from the stream
  - We cannot configure the streams as its right now
  - Inline the streams:
    - `incOrReset$`
    - `intervalThatStops$`
    - `interval$`
  - now change 1000 to time
  - You should have a working solution.