

Event Expressions

CS462

select when web pageview


```
select when web pageview  
url re#/archives/\d{4}/#
```



```
select when web pageview  
  url re#/archives/(\d{4})/#  
  title re#iphone (\w*)#i  
setting(year, next)
```



```
select when bank withdrawal  
where amount > 100
```



```
select when web pageview where  
    url.extract(re#/archives/(\d{4})/#)  
    >  
    2003
```


- ✧ A or B
- ✧ A and B
- ✧ A before B
- ✧ A after B
- ✧ A then B
- ✧ A between (B, C)
- ✧ A not between (B, C)


```
select when bank withdrawal  
        where amount > 100  
before bank deposit  
        where amount > 100
```



```
select when inbound_call  
        from re#\d+#  
between(pageview url re#custserv.html#,  
        pageview url re#homepage.html#)
```

* web:pageview shortened to pageview


```
select
  when pageview url re#mid.html#
    between(pageview url re#\d+.html#,
            pageview url re#\d+.html#)
  before pageview
    url re#/archives/\d+/foo.html#
```



```
select when pageview url re#custserv.html#  
       before pageview url re#homepage.html#  
       within 3 hours
```



```
select when  
  count(4, bank withdrawal  
        where amount > 100)
```


- ✧ `any(n A, B, ...)`

- ✧ `count(n, A)`

- ✧ `repeat(n, A)`


```
select when any(2, pageview url re#orbitz#,  
                  pageview url re#kayak#,  
                  pageview url re#priceline#,  
                  pageview url re#travelocity#,  
                  pageview url re#expedia#  
                )
```



```
select when  
  count(4, bank withdrawal  
        where amount > 100)  
within 24 hours
```



```
select when  
  twilio inbound_call from #(.*)#  
  setting (num)  
after  
  twilio sms_received where  
    from.match("#"+num+"#".as("regexp"))  
within 1 hour
```



```
select when  
  repeat(4,  
    bank withdrawal amount re#(.*)#  
  )  
avg(x)
```


- ✧ $E_{\max}(x)$
- ✧ $E_{\min}(x)$
- ✧ $E_{\text{sum}}(x)$
- ✧ $E_{\text{avg}}(x)$
- ✧ $E_{\text{push}}(x)$


```
select when repeat 5  
  (thermostat new_temperature  
    temperature re/(.*)/) avg(avg_temp)
```