What are window functions
How do they differ from calculate?

<u>Calculate</u> $\{ \dfrac{Worldwide}{10} \quad \dfrac{US}{5} \quad \dfrac{Non\ US}{5} \}$

within a row

<u>Rank()</u>

US	my_rank
100	4
200	3
500	1
300	2

$X - \underline{mean\ (X)}$

each director $\underline{max\ (X)}$ —— many rows
   max (X) $\underline{\qquad\qquad}$ 1 row
   sum ( )

$\underline{R}$
group_by() $\Big\langle$ Summarise

   mutate   window function

cum sum()

	Mon	3		cumsum()
				3
	Tue	5		8
	Wed	1		9