

**Exercise:** Find the predictions of Movie M1 for user U6 on the basis of the information given in the table below. Use cosine similarity to find the similarity.

$$\text{Sim}(x, y) = \text{Cosine}(x, y) = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}}$$

Movie/User	U1	U2	U3	U4	U5	U6	Genre
M1	1	?	1	1	1	?	Romance, Thriller, Action
M2	1	1	1	1	1	?	Thriller, Crime
M3	1	1	1	1	1	1	Action, Romance
M4	?	1	1	1	?	1	Romance
M5	1	1	1	1	1	?	Crime
M6	1	1	?	1	1	1	Crime, Action