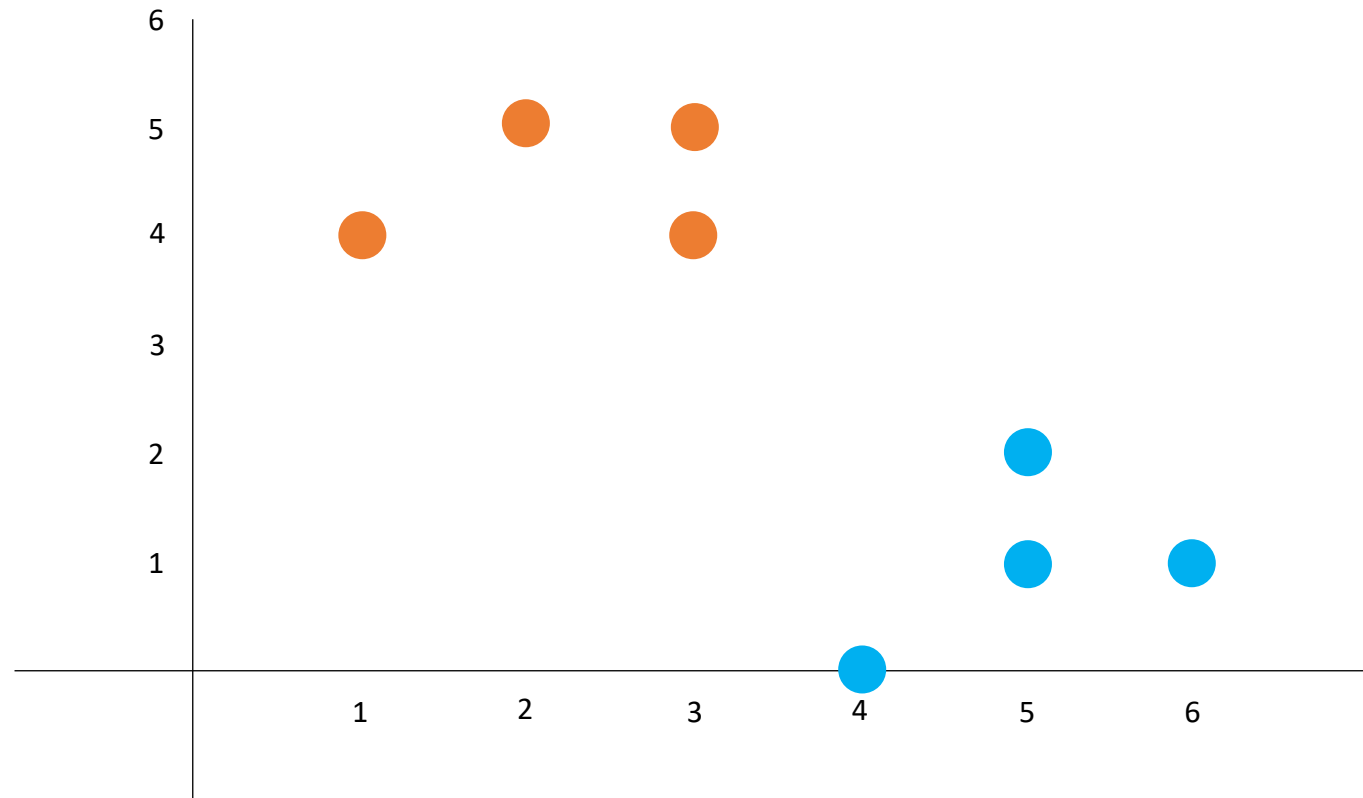


Support Vector Machine (SVM) - Intuition

Dr. Muhammad Wasim

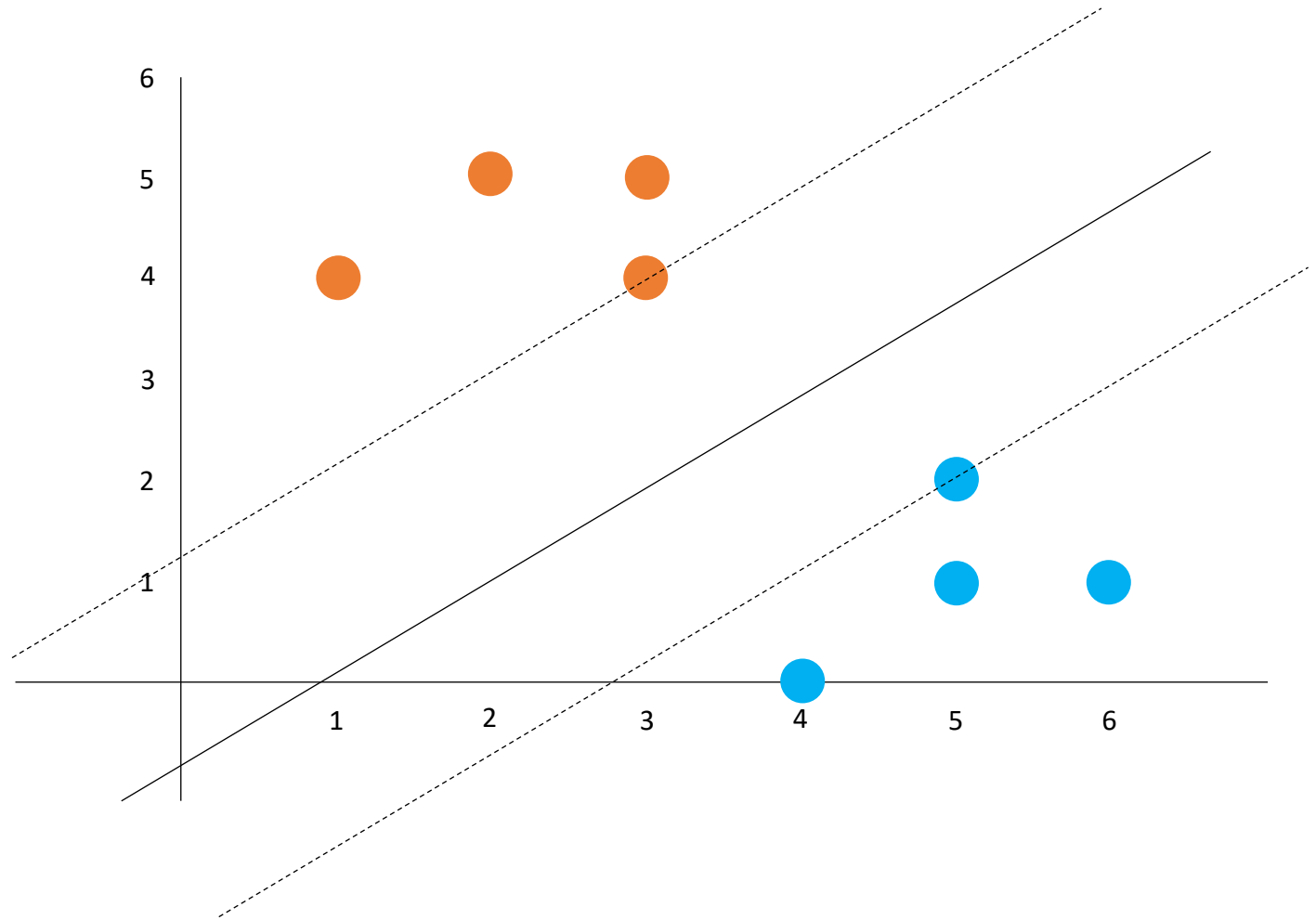
An Example Dataset

x1	x2	y
1	4	A
2	5	A
3	5	A
3	4	A
6	1	B
4	0	B
5	2	B
5	1	B

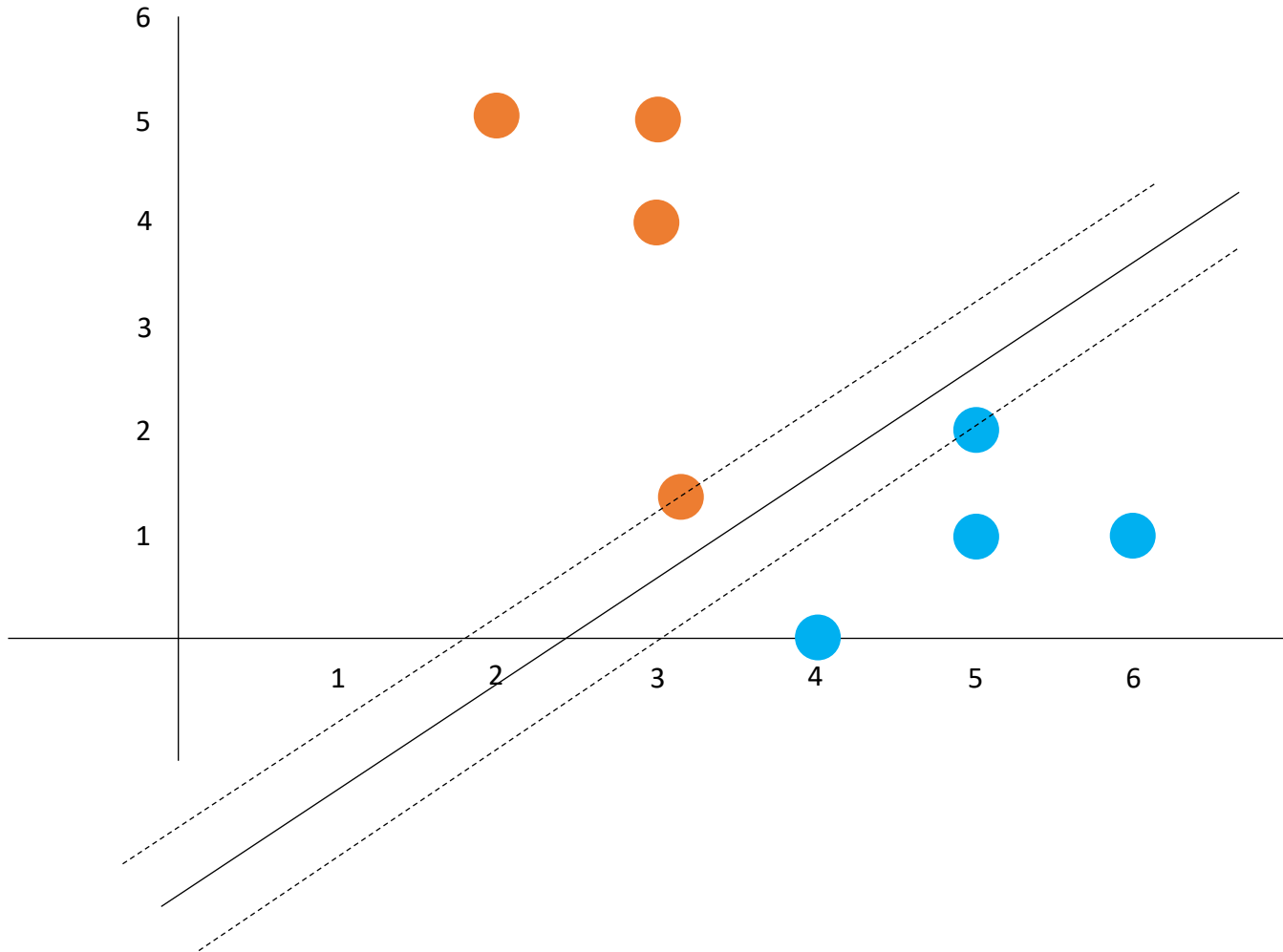


An Example Dataset

x1	x2	y
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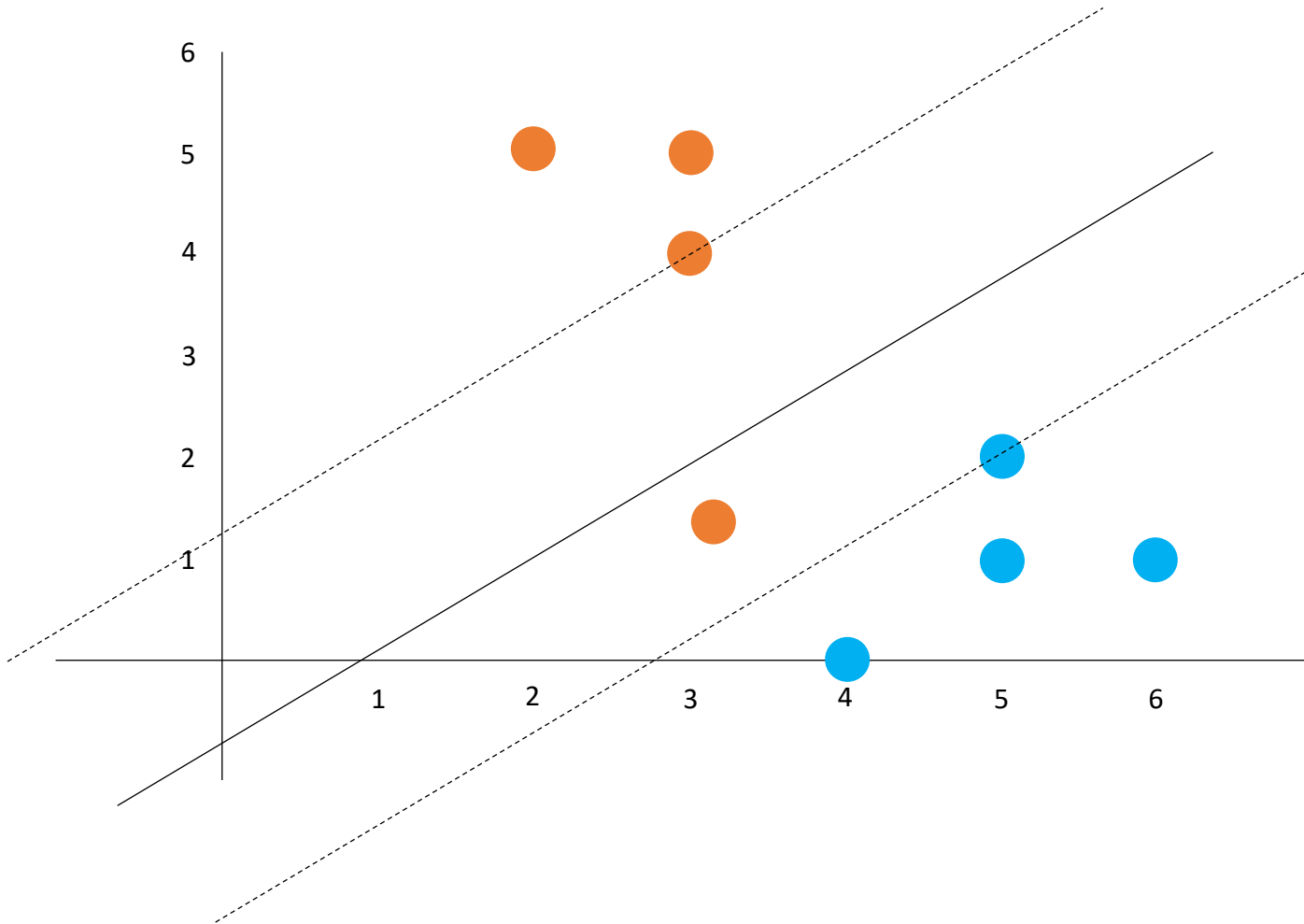


Linear Support Vector Classifier



- **High C :** Prioritizes making few mistakes
- High chances of overfitting!

Linear Support Vector Classifier (Cont.)



- **Low C:** Prioritizes simplicity (**Soft Margin**)
- We can select the value of C using cross validation