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Kelas: MachineLearning-Gab-01

6. (a) Algoritma:

a, b = array of integer for i to all data: if movie_id of i == movie1: append user_id i to a if movie_id of i == movie2: append user_id i to b endfor countboth = count same value in a b return countboth / (length a + length b - countboth)

- (b) 0.597
- (c) Goodfellas, The Godfather: Part II, Chinatown, One Flew Over the Cuckoo's Nest, Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb
- (d) Film pilihan: Home Alone 3. 5 Highest Jaccard Coefficient: Mr. Magoo, Half Baked, Wild America, A Simple Wish, Gilligan's Island Gak pernah nonton, tapi kalau dari judulnya make sense, kaya film anak anak

7. (a) Algoritma:

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a, b = array of integer
rate1, rate2 = dictionary for i to all data:
if movie_id of i == movie1: append user_id i to a
rate1 with key user_id of i = rating of i
endif
if movie_id of i == movie2: append user_id i to b
rate2 with key user_id of i = rating of i
endif
endfor
both = get same value in a b
if length both = 0: return 0
bothrate1, bothrate2 = dictionary
avg1,avg2 = 0
for i in both:
bothrate1 with key i = rate1[i]
bothrate2 with key i = rate2[i]
avg1 += rate1[i]
avg2 += rate2[i]
endfor
avg1,avg2 = avg1/length both,avg2/length both
top, down1, down2 = 0
```

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for i in both:  \begin{array}{l} top \ += \ (bothrate1[i] \ -\ avg1)^*(bothrate2[i] \ -\ avg2) \\ down1 \ += \ (bothrate1[i] \ -\ avg1)\hat{2} \\ down2 \ += \ (bothrate2[i] \ -\ avg2)\hat{2} \\ endfor \\ return \ top/(sqrt(down1) \ ^*\ sqrt(down2) \\ \end{array}
```

- (b) 0.221
- (c) 0.759
- (d) Free Willy 2: The Adventure Home, Crossfire, Dream With the Fishes, City of Angels, The Flower of My Secret (La Flor de mi secreto)
- (e) Chosen: Home Alone 3, Best: GoldenEye, The Santa Clause, Air Bud, Mrs. Brown (Her Majesty, Mrs. Brown), Deconstructing Harry
- 8. Pakai Correlation Coefficient, karena apabila menggunakan Jaccard, user yang memberikan rating rendah pada film pertama, tinggi pada film kedua memiliki kesempatan untuk menjadi 5 best similar.