

## DAFTAR ISI

	<b>Halaman</b>
<b>PRAKATA.....</b>	<b>iv</b>
<b>DAFTAR ISI.....</b>	<b>v</b>
<b>DAFTAR TABEL .....</b>	<b>viii</b>
<b>DAFTAR GAMBAR.....</b>	<b>ix</b>
<b>INTISARI .....</b>	<b>xii</b>
<b>ABSTRACT .....</b>	<b>xiii</b>
<b>BAB I PENDAHULUAN.....</b>	<b>1</b>
1.1 Latar Belakang .....	1
1.2 Rumusan Masalah .....	3
1.3 Batasan Masalah.....	3
1.4 Tujuan Penelitian .....	4
1.5 Manfaat Penelitian .....	4
1.6 Metodologi Penelitian .....	4
1.7 Sistematika Penulisan .....	5
<b>BAB II TINJAUAN PUSTAKA.....</b>	<b>7</b>
<b>BAB III LANDASAN TEORI.....</b>	<b>14</b>
3.1. <i>Collaborative Filtering</i> .....	14
3.1.1. <i>User-based Collaborative Filtering</i> .....	15
3.1.2. <i>Item-based Collaborative Filtering</i> .....	19
3.2. <i>Clustering</i> .....	22
3.3. Metrik Evaluasi .....	25
3.3.1 <i>Mean Squared Error (MSE)</i> .....	25
3.3.2 <i>Root Mean Squared Error (RMSE)</i> .....	25

3.3.3	<i>Mean Absolute Error (MAE)</i> .....	25
<b>BAB IV ANALISIS DAN PERANCANGAN SISTEM</b> .....		<b>27</b>
4.1	Deskripsi Umum Penelitian .....	27
4.2	Analisis Permasalahan .....	27
4.3	Pengumpulan Data .....	28
4.4	Pemrosesan Data .....	30
4.5	Modeling .....	32
4.6	<i>K-means Clustering</i> .....	35
4.7	<i>User-based Collaborative Filtering</i> .....	36
4.8	<i>Item-based Collaborative Filtering</i> .....	38
4.9	Pengujian Performa .....	39
<b>BAB V IMPLEMENTASI SISTEM</b> .....		<b>40</b>
5.1	Spesifikasi Perangkat .....	40
5.2	Implementasi Kode .....	40
5.3	Implementasi <i>Pre-processing</i> .....	41
5.4	Implementasi <i>Clustering</i> .....	44
5.4.1	<i>Training k-means clustering</i> dengan data latih .....	44
5.4.2	Menentukan klaster tiap <i>user</i> pada data uji .....	48
5.5	Implementasi <i>Collaborative Filtering</i> .....	49
5.5.1	<i>User-based collaborative filtering</i> .....	51
5.5.2	<i>Item-based collaborative filtering</i> .....	57
5.6	Implementasi Evaluasi .....	59
<b>BAB VI HASIL DAN PEMBAHASAN</b> .....		<b>62</b>
6.1	Hasil Pengujian <i>User-based Collaborative Filtering</i> .....	62
6.2	Hasil Pengujian <i>Item-based Collaborative Filtering</i> .....	66
6.3	Perbandingan Hasil <i>User-based</i> dan <i>Item-based Collaborative Filtering</i> 70	
<b>BAB VII KESIMPULAN DAN SARAN</b> .....		<b>72</b>

7.1	Kesimpulan .....	72
7.2	Saran.....	73
<b>DAFTAR PUSTAKA .....</b>		<b>74</b>