

DAFTAR ISI

Halaman Judul.....	I
Pernyataan Keaslian	II
Halaman Pengesahan.....	III
Halaman Persetujuan Publikasi	IV
Kata Pengantar	V
Abstrak	VII
Abstract	VIII
Daftar Isi.....	IX
BAB 1 PENDAHULUAN.....	1
1.1. Latar Belakang	3
1.2. Rumusan Masalah	3
1.3. Batasan Masalah.....	3
1.4. Tujuan Penelitian.....	3
1.5. Manfaat Penelitian.....	4
1.6. Sistematika Penulisan.....	4
BAB II LANDASAN TEORI	6
2.1. Analisis Sentimen.....	6
2.2. Opini.....	7
2.3. Game online	8
2.4. Kecanduan <i>Game online</i>	8

2.5. <i>Twitter</i>	9
2.6. <i>Data mining</i>	10
2.7. <i>Text mining</i>	12
2.8. <i>Text Pre-Processing</i>	12
2.9. <i>Klasifikasi (Classification)</i>	13
2.10. <i>Term Weighting</i>	13
2.10.1. <i>Count Vectorizer</i>	13
2.11. <i>TDF-IDF (Term Frequency – Invers Document Frequency)</i>	14
2.12. <i>Naïve Bayes</i>	15
2.13. <i>Vader Lexicon</i>	18
2.14. <i>Confusion Matrix</i>	19
2.15. <i>Rapid Miner</i>	21
2.15. <i>Python</i>	21
2.16. <i>Jupyter Notebook</i>	22
BAB III METODE PENELITIAN	23
3.1. <i>Rencana Penelitian</i>	23
3.2. <i>Kerangka Berpikir</i>	23
3.2.1. <i>Menentukan Topik</i>	24
3.2.2. <i>Studi Literatur</i>	25

3.2.3. Analisa Kebutuhan	25
3.2.4. Pengumpulan Data	25
3.2.5. Preprocessing	25
3.2.6. Translate	27
3.2.7. Klasifikasi/Labeling	27
3.2.8. Visualisasi Model	27
3.2.9. Evaluasi Model.....	27
3.3. Alat Bantu Penelitian	27
3.3.1. Spesifikasi Perangkat Keras (<i>hardware</i>).....	28
3.3.2. Spesifikasi Perangkat Lunak (<i>Software</i>)	28
3.4. Jadwal Penelitian	29
BAB IV HASIL DAN PEMBAHASAN	30
4.1. Hasil Pengumpulan Data	30
4.2. Preprocessing	31
4.2.1. <i>Cleaning Tweet</i>	32
4.2.2. <i>Stopword Removal</i>	33
4.2.3. <i>Tokenizing</i>	34
4.2.4. <i>Remove Punctuation</i>	34
4.2.5. <i>Stemming</i>	35

4.2.6. <i>Case Folding</i>	36
4.2.7. Normalisasi.....	36
4.2.8. <i>Implode</i>	37
4.2.9. Translasi Data.....	37
4.3. Perancangan Data Set	38
4.4. TF-IDF (<i>Term Frequency Inverse Document Frequency</i>)	40
4.5. Count Vectorizer.....	42
4.6. Pembuatan Model Machine Learning.....	42
4.6.1. <i>Naïve Bayes</i>	43
4.6.2. <i>Lexicon Based</i>	44
4.7. <i>Matrix Confusion</i>	46
4.8. Hasil Analisis.....	47
BAB V PENUTUP	48
5.1. Kesimpulan.....	48
5.2. Saran	49
Daftar Pusaka.....	50
Lampiran.....	53

DAFTAR GAMBAR

Gambar 1. <i>Logo Twitter</i>	10
Gambar 2. <i>Flowchart Sederhana Data Mining</i>	11
Gambar 3. <i>Tahapan Algoritma Bayes</i>	16
Gambar 4. <i>Logo Aplikasi Pyton</i>	22
Gambar 5. <i>Logo Aplikasi Jupyter Notebook</i>	22
Gambar 6. <i>Tahapan CRISP-DM</i>	23
Gambar 7. <i>Kerangka Berpikir</i>	24
Gambar 8. <i>Processing Data</i>	26
Gambar 9. <i>Proses Crawling Data</i>	30
Gambar 10. <i>Hasil Scraping Data Melalui Rapid Miner</i>	31
Gambar 11. <i>Implementasi Cleaning Tweet</i>	32
Gambar 12. <i>Implementasi Stopword Removal</i>	33
Gambar 13. <i>Hasil Kata Yang Pada Implementasi Stopword</i>	33
Gambar 14. <i>Implementasi Tokenizing</i>	34
Gambar 15. <i>Implementasi Remove Punctuation</i>	35
Gambar 16. <i>Implementasi Stemming</i>	35
Gambar 17. <i>Implementasi Case Folding</i>	36
Gambar 18. <i>Implentasi Implode</i>	37
Gambar 19. <i>Implementasi Translate Data</i>	37
Gambar 20. <i>Hasil Translate Data</i>	38
Gambar 21. <i>Hasil Data Set</i>	38

Gambar 22. <i>Diagram Batang Hasil Klasifikasi Opini Masyarakat Mengenai Game Online</i>	39
Gambar 23. <i>Diagram Lingkaran Hasil Klasifikasi Opini Masyarakat Mengenai Game Online</i>	39
Gambar 24. <i>Wordcloud Hasil Klasifikasi Opini Masyarakat Mengenai Game Online</i>	40
Gambar 25. <i>Implementasi TF-IDF</i>	41
Gambar 26. <i>Hasil implementasi TF-IDF</i>	41
Gambar 27. <i>Implementasi Count Vectorizer</i>	42
Gambar 28. <i>Hasil Count Vectorizer</i>	42
Gambar 29. <i>Prediksi Naïve Bayes</i>	43
Gambar 30. <i>Hasil Prediksi Naïve Bayes</i>	43
Gambar 31. <i>Prediksi Lexicon Based</i>	44
Gambar 32. <i>Hasil Prediksi Lexicon Based</i>	45
Gambar 33. <i>Implementasi Matrix Confusion Naïve Bayes dan Lexicon Based</i>	46
Gambar 34. <i>Hasil Matrix Confusion Naïve Bayes</i>	46
Gambar 35. <i>Hasil Matrix Confusion Vader Lexicon</i>	47

DAFTAR TABEL

Tabel 1. <i>Confussion Matrix (Han et al., 2012)</i>	19
Tabel 2. <i>Tabel Jadwal Penelitian</i>	29
Tabel 3. <i>Hasil Cleaning Tweet</i>	32
Tabel 4. <i>Hasil Implementasi Tokenizing</i>	34
Tabel 5. <i>Hasil Implementasi Stemming</i>	35
Tabel 6. <i>Hasil Normalisasi Kata</i>	36