

**Pengembangan Aplikasi ARSG : *Association Rules and Survey Generator*  
Menggunakan Algoritma FP-Growth dengan Metode LAPI untuk Penanganan  
*Incremental Data*  
(Studi Kasus : Faktor Kematian Akibat Covid-19)**

SKRIPSI

Diajukan untuk Memenuhi Sebagian dari  
Syarat Memperoleh Gelar Sarjana Komputer  
Program Studi Ilmu Komputer



oleh  
Khamal Fauzan Somantri  
1504526

**PROGRAM STUDI ILMU KOMPUTER  
DEPARTEMEN PENDIDIKAN ILMU KOMPUTER  
FAKULTAS PENDIDIKAN MATEMATIKA DAN ILMU PENGETAHUAN ALAM  
UNIVERSITAS PENDIDIKAN INDONESIA  
2022**

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Oleh  
Khamal Fauzan Somantri  
NIM 1504526

Sebuah skripsi yang diajukan untuk memenuhi salah satu syarat memperoleh gelar Sarjana Komputer pada Fakultas Pendidikan Matematika dan Ilmu Pengetahuan Alam

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Juli 2022

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**KHAMAL FAUZAN SOMANTRI**

1504526

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Disetujui dan Disahkan Oleh Pembimbing:

Pembimbing I,



**Dr. Rani Megasari, M. T.**

NIP. 198705242014042002

Pembimbing II,

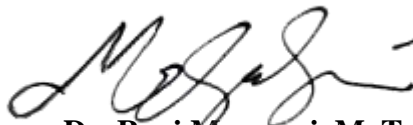


**Yudi Ahmad Hambali, M.T.**

NIP. 199005302019031013

Mengetahui,

Sekretaris Departemen Pendidikan Ilmu Komputer



**Dr. Rani Megasari, M. T.**

NIP. 198705242014042002

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Oleh

Khamal Fauzan Somantri – khamalfa@upi.edu

1504526

**ABSTRAK**

Seiring berkembangnya penggunaan data dengan skala besar serta kebutuhan *data mining* yang terus meningkat, maka komputasi tinggi dibutuhkan oleh berbagai macam sistem. Sistem perlu mengumpulkan dan menganalisis data yang benar-benar dibutuhkan sebelum mengambil suatu keputusan. Selain itu, kurangnya integrasi data menyebabkan tantangan interoperabilitas dalam bidang kesehatan, sehingga menjadi tantangan kritis dalam situasi pandemi Covid-19. Data yang dibutuhkan merupakan *incremental data*, maka jumlah pembacaan data set dan pemeliharaan hubungan antar item secara efisien perlu dilakukan. Penelitian ini menggunakan algoritma FP-Growth dengan metode LAPI untuk penanganan *incremental data* tersebut. Hasil dari penelitian ini adalah aplikasi *Association Rules and Survey Generator* (ARSG) yang dibangun berhasil menjadi pengumpul dan pengolah data secara terpusat dan terintegrasi, sehingga siapapun mudah untuk mengaksesnya dan berkontribusi. Hal tersebut didasarkan pada hasil *testing aplikasi* yaitu 100% fungsi pada aplikasi berjalan dengan baik. Juga untuk mengetahui faktor apa saja yang paling berpengaruh terhadap kematian pada penyintas Covid-19. Selain itu aplikasi ARSG mampu melibatkan banyak orang yang mau berbagi pengalaman terkait orang terdekatnya yang positif Covid-19 dan meninggal dunia.

Kata Kunci : *Association Rules, Covid-19, FP-Growth, Look Ahead for Promising Item (LAPI), Survey Generator*

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*Arranged by*

Khamal Fauzan Somantri – khamalfa@upi.edu

1504526

**ABSTRACT**

As the use of large-scale data grows and the need for data mining continues to increase, computing is needed by various systems. The system needs to collect and analyze data that is really needed before making a decision. In addition, the lack of data integration causes interoperability challenges in healthcare, making it a critical challenge in the Covid-19 pandemic situation. The data needed is incremental data, so the number of readings of the data set and maintaining the relationship between data items efficiently needs to be done. This study used the FP-Growth algorithm with the LAPI method to handle the incremental data. The result of this research is that the Association Rules and Survey Generator (ARSG) application that was built has succeeded in becoming an integrated and integrated data collector and processor, so that it is easy for everyone to access it and contribute. This is based on the results of application testing, it was 100% of the functions in the application are running well. Also to find out what factors have the most influence on death in Covid-19 survivors. In addition, the ARSG application involved many people who want to share experiences related to their closest people who were positive for Covid-19 and died.

*Keyword : Association Rules, Covid-19, FP-Growth, Look Ahead for Promising Item (LAPI), Survey Generator*

## DAFTAR ISI

ABSTRAK .....	i
ABSTRACT .....	ii
KATA PENGANTAR .....	iii
UCAPAN TERIMAKASIH .....	iv
DAFTAR ISI .....	v
DAFTAR GAMBAR .....	vi
DAFTAR TABEL .....	vii
DAFTAR LAMPIRAN .....	viii
BAB I PENDAHULUAN .....	1
1.1 Latar Belakang .....	1
1.2 Rumusan Masalah .....	4
1.3 Tujuan Penelitian .....	4
1.4 Manfaat Penelitian .....	4
1.5 Batasan Penelitian .....	4
1.6 Sistematika Penulisan .....	5
BAB II KAJIAN PUSTAKA .....	7
2.1 Peta Literatur .....	7
2.2 Association Rules .....	7
2.2.1 Pengertian Association Rules .....	7
2.2.2 <i>Association Rule Mining</i> dalam Penelitian Covid-19 .....	8
2.3 Algoritma FP-Growth .....	11
2.3.1 Definisi Algoritma FP-Growth .....	11
2.3.2 Konsep Algoritma FP-Growth .....	11
2.3.3 Arsitektur Algoritma FP-Growth .....	14

2.3.4 Penerapan <i>Association Rules</i> dan Algoritma FP-growth .....	16
2.4 Covid-19.....	19
2.4.1 Pengertian, Sejarah, dan Fakta Covid-19.....	19
2.4.2 Covid-19 di Indonesia.....	22
2.4.3 Faktor Penyebab Kematian Akibat Covid-19 .....	22
2.5 Incremental Data <i>dan</i> Data Streaming .....	25
2.5.1 Masalah <i>Incremental Data</i> di Dalam <i>Association Rules</i> .....	25
2.5.2 Look Ahead for Promising Item (LAPI).....	27
2.6 Python dan Flask untuk Web Development .....	29
2.6.1 Python .....	29
2.6.2 Flask.....	30
2.6.3 Web Development .....	31
2.7 Penelitian Terkait .....	32
<b>BAB III METODOLOGI PENELITIAN.....</b>	<b>37</b>
3.1 Desain Penelitian.....	37
3.2 Desain Pengembangan Perangkat Lunak .....	38
3.3 Metode Pengumpulan Data .....	40
3.4 Data Penelitian .....	40
3.5 Rencana Implementasi .....	41
3.6 Lingkungan Komputasi .....	43
<b>BAB IV HASIL DAN PEMBAHASAN .....</b>	<b>44</b>
4.1 Tahap Analisis.....	44
4.1.1 Analisis Umum .....	44
4.1.2 Analisis Pengguna.....	44
4.1.3 Analisis Data.....	45
4.1.4 Analisis Kebutuhan Perangkat Lunak.....	46

4.1.5 Analisis Kebutuhan Perangkat Keras .....	47
4.2 Tahap Desain.....	47
4.2.1 Perancangan Arsitektural .....	47
4.2.2 Perancangan Antarmuka .....	49
4.2.3 Perancangan Sistem .....	52
4.3 Persiapan Data.....	53
4.3.1 Data Cleaning.....	53
4.3.2 Data Integration.....	55
4.3.3 Data Selection .....	55
4.3.4 Data Transformation .....	56
4.4 Tahap Pengembangan.....	56
4.4.1 Pembuatan Antarmuka.....	57
4.4.2 Pengkodean Aplikasi .....	63
4.5 Tahap Implementasi .....	74
4.5.1 Pemasangan Aplikasi .....	74
4.5.2 Black-box Testing.....	74
4.5.3 Uji Coba Produk Menggunakan Data Set Sejenis .....	77
4.5.3 Skenario Penggunaan Oleh User .....	79
<b>BAB V KESIMPULAN DAN SARAN.....</b>	<b>81</b>
5.1 Kesimpulan.....	81
5.2 Saran.....	81
<b>DAFTAR PUSTAKA .....</b>	<b>82</b>



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