

LAMPIRAN

Lampiran 1. Hasil Perhitungan *Node 1*, *Node 1.1* dan *Node 1.1.2*

Tabel 1 Hasil Perhitungan *Node 1*

<i>Node</i>	<i>Atribut</i>	<i>Nilai</i>	Jumlah Kasus (S)	Calon Dosen (S1)	Dosen Tetap (S2)	<i>Entropy</i>	<i>Gain</i>
1	Lama Kerja	1	19	17	2	0.485460761	0.4814 30674
		2	14	8	6	0.985228136	
		3	10	2	8	0.721928095	
		4	6	1	5	0.650022422	
		5	10	0	10	0	
		6	4	0	4	0	
		7	11	0	11	0	
		8	3	0	3	0	
		9	8	0	8	0	
		11	3	0	3	0	
		12	9	0	9	0	
		13	2	0	2	0	
		14	5	0	5	0	
		15	5	0	5	0	
		16	3	0	3	0	
		17	5	0	5	0	
		18	2	0	2	0	
		19	6	0	6	0	
		20	2	0	2	0	
		21	3	0	3	0	
		22	7	0	7	0	
		1	Tempat Asal	a	1	0	
Banda Aceh	1			0	1	0	
Bandung	1			0	1	0	
Bangka	1			0	1	0	
Bantul	12			3	9	0.811278124	
Banyuwangi	1			0	1	0	
Bima	1			0	1	0	
Blora	1			1	0	0	
Bogor	2			0	2	0	
Bojonegoro	1			0	1	0	

(Lanjutan) **Tabel 1** Hasil Perhitungan *Node 1*

<i>Node</i>	<i>Attribut</i>	<i>Nilai</i>	Jumlah Kasus (S)	Calon Dosen (S1)	Dosen Tetap (S2)	<i>Entropy</i>	<i>Gain</i>
1	Tempat Asal	Boyolali	2	1	1	1	0.1838 50926
		Brebes	1	1	0	0	
		Cilacap	1	0	1	0	
		Denpasar	1	0	1	0	
		Desa Tenggara	1	0	1	0	
		Gresik	2	0	2	0	
		Gunggung Kidul	2	1	1	1	
		Jakarta	4	1	3	0.811278124	
		Jember	1	0	1	0	
		Jepara	1	0	1	0	
		Karanganyar	1	1	0	0	
		Karta	1	0	1	0	
		Kebumen	1	0	1	0	
		Kediri	1	0	1	0	
		Kelaten	5	1	4	0.721928095	
		Kulon Progo	3	2	1	0.918295834	
		Madiun	3	0	3	0	
		Magelang	2	0	2	0	
		Medan	1	1	0	0	
		Mojokerto	1	0	1	0	
Palembang	1	0	1	0			
Pekalongan	2	1	1	1			
Pontianak	1	0	1	0			

(Lanjutan) **Tabel 1** Hasil Perhitungan *Node 1*

<i>Node</i>	<i>Attribut</i>	<i>Nilai</i>	Jumlah Kasus (S)	Calon Dosen (S1)	Dosen Tetap (S2)	<i>Entropy</i>	<i>Gain</i>
1	Tempat Asal	Purwokerto	1	0	1	0	0.1838 50926
		Purworejo	1	0	1	0	
		Q	1	0	1	0	
		Rembang	2	0	2	0	
		S	1	0	1	0	
		Semarang	3	0	3	0	
		Singaraja	1	1	0	0	
		Sleman	14	3	11	0.749595257	
		Sragen	2	1	1	1	
		Sukoharjo	2	0	2	0	
		Surabaya	2	0	2	0	
		Surakarta	6	0	6	0	
		Tanah Abang	1	1	0	0	
		Tegal	1	0	1	0	
		Wonosobo	2	1	1	1	
	yogyakarta	36	7	29	0.710676854		
	Usia	28	3	2	1	0.918295834	0.3383 93706
		29	6	4	2	0.918295834	
		30	14	10	4	0.863120569	
		31	4	1	3	0.811278124	
32		10	3	7	0.881290899		
33		4	3	1	0.811278124		
34		5	0	5	0		
35		9	1	8	0.503258335		
36		7	2	5	0.863120569		
37		6	0	6	0		
38	5	1	4	0.721928095			
39	5	0	5	0			
40	1	0	1	0			

(Lanjutan) **Tabel 1** Hasil Perhitungan *Node 1*

<i>Node</i>	<i>Attribut</i>	<i>Nilai</i>	Jumlah Kasus (S)	Calon Dosen (S1)	Dosen Tetap (S2)	<i>Entropy</i>	<i>Gain</i>
1		41	3	0	3	0	0.3383 93706
		42	6	1	5	0.650022422	
		43	4	0	4	0	
		44	6	0	6	0	
		45	2	0	2	0	
		46	9	0	9	0	
		47	9	0	9	0	
		48	9	0	9	0	
		49	3	0	3	0	
		50	4	0	4	0	
		51	1	0	1	0	
		52	1	0	1	0	
		53	1	0	1	0	

Tabel 2 Hasil Perhitungan *Node 1.1*

<i>Node</i>	<i>Attribut</i>	<i>Nilai</i>	Jumlah Kasus (S)	Calon Dosen (S1)	Dosen Tetap (S2)	<i>Entropy</i>	<i>Gain</i>	
1.1	Lama Kerja ≥ 2		19	17	2	0.485460761	0.0749 20284	
	Jenis Kelamin	Laki-Laki	7	7	0	0		
		Perempuan	12	10	2	0.650022422		
	Tempat Asal	Bantul	2	2	0	0		0.1749 27365
		Boyolali	1	1	0	0		
		Jakarta	2	1	1	1		
		Klaten	1	1	0	0		
		Kulon Progo	2	2	0	0		
		Singaraja	1	1	0	0		
		Sleman	3	3	0	0		
		Sragen	1	1	0	0		
		Yogyakarta	6	5	1	0.650022422		

(Lanjutan) **Tabel 2** Hasil Perhitungan *Node* 1.1

<i>Node</i>	<i>Atribut</i>	<i>Nilai</i>	Jumlah Kasus (S)	Calon Dosen (S1)	Dosen Tetap (S2)	<i>Entropy</i>	<i>Gain</i>
1.1	Usia	28	1	1	0	0	0.2749 34445
		29	3	3	0	0	
		30	5	5	0	0	
		32	2	2	0	0	
		33	2	2	0	0	
		35	2	1	1	1	
		36	1	1	0	0	
		38	1	1	0	0	
		42	2	1	1	1	

Tabel 3 Hasil Perhitungan *Node* 1.1.2

<i>Node</i>	<i>Atribut</i>	<i>Nilai</i>	Jumlah Kasus (S)	Calon Dosen (S1)	Dosen Tetap (S2)	<i>Entropy</i>	<i>Gain</i>
1.1.2	Usia = 35		2	1	1	1	
	Jenis Kelamin	Laki-Laki	1	1	0	0	1
		Perempuan	1	0	1	0	
	Tempat Asal	Yogyakarta	2	1	1	1	-1

Lampiran 2. Perhitungan Nilai Entropy Node 1, Node 1.1 dan Node 1.1.2

Tabel 4 Perhitungan Entropy Node 1 Atribut Lama Kerja

Attribut Lama Kerja	Perhitungan	Nilai Entropy
<i>Entropy</i> (1)	$= \left(-\frac{17}{19} * \log_2 \left(\frac{17}{19}\right)\right) + \left(-\frac{2}{19} * \log_2 \left(\frac{2}{19}\right)\right)$	= 0.485460761
<i>Entropy</i> (2)	$= \left(-\frac{8}{14} * \log_2 \left(\frac{8}{14}\right)\right) + \left(-\frac{6}{14} * \log_2 \left(\frac{6}{14}\right)\right)$	= 0.985228136
<i>Entropy</i> (3)	$= \left(-\frac{2}{10} * \log_2 \left(\frac{2}{10}\right)\right) + \left(-\frac{8}{10} * \log_2 \left(\frac{8}{10}\right)\right)$	= 0.721928095
<i>Entropy</i> (4)	$= \left(-\frac{1}{6} * \log_2 \left(\frac{1}{6}\right)\right) + \left(-\frac{5}{6} * \log_2 \left(\frac{5}{6}\right)\right)$	= 0.650022422
<i>Entropy</i> (5)	$= \left(-\frac{0}{10} * \log_2 \left(\frac{0}{10}\right)\right) + \left(-\frac{10}{10} * \log_2 \left(\frac{10}{10}\right)\right)$	= 0
<i>Entropy</i> (6)	$= \left(-\frac{0}{4} * \log_2 \left(\frac{0}{4}\right)\right) + \left(-\frac{4}{4} * \log_2 \left(\frac{4}{4}\right)\right)$	= 0
<i>Entropy</i> (7)	$= \left(-\frac{0}{11} * \log_2 \left(\frac{0}{11}\right)\right) + \left(-\frac{11}{11} * \log_2 \left(\frac{11}{11}\right)\right)$	= 0
<i>Entropy</i> (8)	$= \left(-\frac{0}{3} * \log_2 \left(\frac{0}{3}\right)\right) + \left(-\frac{3}{3} * \log_2 \left(\frac{3}{3}\right)\right)$	= 0
<i>Entropy</i> (9)	$= \left(-\frac{0}{8} * \log_2 \left(\frac{0}{8}\right)\right) + \left(-\frac{8}{8} * \log_2 \left(\frac{8}{8}\right)\right)$	= 0
<i>Entropy</i> (11)	$= \left(-\frac{0}{3} * \log_2 \left(\frac{0}{3}\right)\right) + \left(-\frac{3}{3} * \log_2 \left(\frac{3}{3}\right)\right)$	= 0
<i>Entropy</i> (12)	$= \left(-\frac{0}{9} * \log_2 \left(\frac{0}{9}\right)\right) + \left(-\frac{9}{9} * \log_2 \left(\frac{9}{9}\right)\right)$	= 0
<i>Entropy</i> (13)	$= \left(-\frac{0}{2} * \log_2 \left(\frac{0}{2}\right)\right) + \left(-\frac{2}{2} * \log_2 \left(\frac{2}{2}\right)\right)$	= 0
<i>Entropy</i> (14)	$= \left(-\frac{0}{5} * \log_2 \left(\frac{0}{5}\right)\right) + \left(-\frac{5}{5} * \log_2 \left(\frac{5}{5}\right)\right)$	= 0
<i>Entropy</i> (15)	$= \left(-\frac{0}{5} * \log_2 \left(\frac{0}{5}\right)\right) + \left(-\frac{5}{5} * \log_2 \left(\frac{5}{5}\right)\right)$	= 0
<i>Entropy</i> (16)	$= \left(-\frac{0}{3} * \log_2 \left(\frac{0}{3}\right)\right) + \left(-\frac{3}{3} * \log_2 \left(\frac{3}{3}\right)\right)$	= 0
<i>Entropy</i> (17)	$= \left(-\frac{0}{5} * \log_2 \left(\frac{0}{5}\right)\right) + \left(-\frac{5}{5} * \log_2 \left(\frac{5}{5}\right)\right)$	= 0

(Lanjutan) **Tabel 4** Perhitungan *Entropy Node 1 Atribut Lama Kerja*

Atribut Lama Kerja	Perhitungan	Nilai Entropy
<i>Entropy</i> (18)	$= \left(-\frac{0}{2} * \log_2 \left(\frac{0}{2}\right)\right) + \left(-\frac{2}{2} * \log_2 \left(\frac{2}{2}\right)\right)$	= 0
<i>Entropy</i> (19)	$= \left(-\frac{0}{6} * \log_2 \left(\frac{0}{6}\right)\right) + \left(-\frac{6}{6} * \log_2 \left(\frac{6}{6}\right)\right)$	= 0
<i>Entropy</i> (20)	$= \left(-\frac{0}{2} * \log_2 \left(\frac{0}{2}\right)\right) + \left(-\frac{2}{2} * \log_2 \left(\frac{2}{2}\right)\right)$	= 0
<i>Entropy</i> (21)	$= \left(-\frac{0}{3} * \log_2 \left(\frac{0}{3}\right)\right) + \left(-\frac{3}{3} * \log_2 \left(\frac{3}{3}\right)\right)$	= 0
<i>Entropy</i> (22)	$= \left(-\frac{0}{7} * \log_2 \left(\frac{0}{7}\right)\right) + \left(-\frac{7}{7} * \log_2 \left(\frac{7}{7}\right)\right)$	= 0

Tabel 5 Perhitungan *Entropy Node 1 Atribut Tempat Asal*

Atribut Tempat Asal	Perhitungan	Nilai Entropy
<i>Entropy</i> (a)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Banda Aceh)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Bandung)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Bangka)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Bantul)	$= \left(-\frac{3}{12} * \log_2 \left(\frac{3}{12}\right)\right) + \left(-\frac{9}{12} * \log_2 \left(\frac{9}{12}\right)\right)$	= 0.811278124

(Lanjutan) **Tabel 5** Perhitungan Entropy *Node 1* *Attribut* Tempat Asal

<i>Attribut</i> Tempat Asal	Perhitungan	Nilai <i>Entropy</i>
<i>Entropy</i> (Banyuwangi)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Bima)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Blora)	$= \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right) + \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right)$	= 0
<i>Entropy</i> (Bogor)	$= \left(-\frac{0}{2} * \log_2 \left(\frac{0}{2}\right)\right) + \left(-\frac{2}{2} * \log_2 \left(\frac{2}{2}\right)\right)$	= 0
<i>Entropy</i> (Bojonegoro)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Boyolali)	$= \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right) + \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right)$	= 1
<i>Entropy</i> (Brebes)	$= \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right) + \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right)$	= 0
<i>Entropy</i> (Cilacap)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Denpasar)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0

(Lanjutan) **Tabel 5** Perhitungan Entropy *Node 1 Atribut* Tempat Asal

<i>Atribut</i> Tempat Asal	Perhitungan	Nilai Entropy
<i>Entropy</i> (Desa Tenggara)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Gresik)	$= \left(-\frac{0}{2} * \log_2 \left(\frac{0}{2}\right)\right) + \left(-\frac{2}{2} * \log_2 \left(\frac{2}{2}\right)\right)$	= 0
<i>Entropy</i> (Gunggung Kidul)	$= \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right) + \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right)$	= 1
<i>Entropy</i> (Jakarta)	$= \left(-\frac{1}{4} * \log_2 \left(\frac{1}{4}\right)\right) + \left(-\frac{3}{4} * \log_2 \left(\frac{3}{4}\right)\right)$	= 0.811278124
<i>Entropy</i> (Jember)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Jepara)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Karanganyar)	$= \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right) + \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right)$	= 0
<i>Entropy</i> (Karta)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Kebumen)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Kediri)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0

(Lanjutan) **Tabel 5** Perhitungan Entropy *Node 1* *Attribut* Tempat Asal

<i>Attribut</i> Tempat Asal	Perhitungan	Nilai <i>Entropy</i>
<i>Entropy</i> (Kelaten)	$= \left(-\frac{1}{5} * \log_2 \left(\frac{1}{5} \right) \right) + \left(-\frac{4}{5} * \log_2 \left(\frac{4}{5} \right) \right)$	= 0.721928095
<i>Entropy</i> (Kulon Progo)	$= \left(-\frac{2}{3} * \log_2 \left(\frac{2}{3} \right) \right) + \left(-\frac{1}{3} * \log_2 \left(\frac{1}{3} \right) \right)$	= 0.918295834
<i>Entropy</i> (Madiun)	$= \left(-\frac{0}{3} * \log_2 \left(\frac{0}{3} \right) \right) + \left(-\frac{3}{3} * \log_2 \left(\frac{3}{3} \right) \right)$	= 0
<i>Entropy</i> (Magelang)	$= \left(-\frac{0}{2} * \log_2 \left(\frac{0}{2} \right) \right) + \left(-\frac{2}{2} * \log_2 \left(\frac{2}{2} \right) \right)$	= 0
<i>Entropy</i> (Medan)	$= \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1} \right) \right) + \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1} \right) \right)$	= 0
<i>Entropy</i> (Mojokerto)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1} \right) \right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1} \right) \right)$	= 0
<i>Entropy</i> (Palembang)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1} \right) \right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1} \right) \right)$	= 0
<i>Entropy</i> (Pekalongan)	$= \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2} \right) \right) + \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2} \right) \right)$	= 1
<i>Entropy</i> (Pontianak)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1} \right) \right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1} \right) \right)$	= 0
<i>Entropy</i> (Purwokerto)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1} \right) \right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1} \right) \right)$	= 0

(Lanjutan) **Tabel 5** Perhitungan Entropy *Node 1 Atribut* Tempat Asal

<i>Atribut</i> Tempat Asal	Perhitungan	Nilai <i>Entropy</i>
<i>Entropy</i> (Purworejo)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Q)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Rembang)	$= \left(-\frac{0}{2} * \log_2 \left(\frac{0}{2}\right)\right) + \left(-\frac{2}{2} * \log_2 \left(\frac{2}{2}\right)\right)$	= 0
<i>Entropy</i> (S)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Semarang)	$= \left(-\frac{0}{3} * \log_2 \left(\frac{0}{3}\right)\right) + \left(-\frac{3}{3} * \log_2 \left(\frac{3}{3}\right)\right)$	= 0
<i>Entropy</i> (Singaraja)	$= \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right) + \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right)$	= 0
<i>Entropy</i> (Sleman)	$= \left(-\frac{3}{14} * \log_2 \left(\frac{3}{14}\right)\right) + \left(-\frac{11}{14} * \log_2 \left(\frac{11}{14}\right)\right)$	= 0.749595257
<i>Entropy</i> (Sragen)	$= \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right) + \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right)$	= 1
<i>Entropy</i> (Sukoharjo)	$= \left(-\frac{0}{2} * \log_2 \left(\frac{0}{2}\right)\right) + \left(-\frac{2}{2} * \log_2 \left(\frac{2}{2}\right)\right)$	= 0
<i>Entropy</i> (Surabaya)	$= \left(-\frac{0}{2} * \log_2 \left(\frac{0}{2}\right)\right) + \left(-\frac{2}{2} * \log_2 \left(\frac{2}{2}\right)\right)$	= 0

(Lanjutan) **Tabel 5** Perhitungan Entropy *Node 1* *Attribut* Tempat Asal

Attribut Tempat Asal	Perhitungan	Nilai Entropy
<i>Entropy</i> (Surakarta)	$= \left(-\frac{0}{6} * \log_2 \left(\frac{0}{6}\right)\right) + \left(-\frac{6}{6} * \log_2 \left(\frac{6}{6}\right)\right)$	= 0
<i>Entropy</i> (Tanah Abang)	$= \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right) + \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right)$	= 0
<i>Entropy</i> (Tegal)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (Wonosobo)	$= \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right) + \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right)$	= 1
<i>Entropy</i> (yogyakarta)	$= \left(-\frac{7}{36} * \log_2 \left(\frac{7}{36}\right)\right) + \left(-\frac{29}{36} * \log_2 \left(\frac{29}{36}\right)\right)$	= 0.710676854

Tabel 6 Perhitungan Entropy *Node 1* *Attribut* Usia

Attribut Usia	Perhitungan	Nilai Entropy
<i>Entropy</i> (28)	$= \left(-\frac{2}{3} * \log_2 \left(\frac{2}{3}\right)\right) + \left(-\frac{1}{3} * \log_2 \left(\frac{1}{3}\right)\right)$	0.918295834
<i>Entropy</i> (29)	$= \left(-\frac{4}{6} * \log_2 \left(\frac{4}{6}\right)\right) + \left(-\frac{2}{6} * \log_2 \left(\frac{2}{6}\right)\right)$	= 0.918295834
<i>Entropy</i> (30)	$= \left(-\frac{10}{14} * \log_2 \left(\frac{10}{14}\right)\right) + \left(-\frac{4}{14} * \log_2 \left(\frac{4}{14}\right)\right)$	= 0.893120569
<i>Entropy</i> (31)	$= \left(-\frac{1}{4} * \log_2 \left(\frac{1}{4}\right)\right) + \left(-\frac{3}{4} * \log_2 \left(\frac{3}{4}\right)\right)$	= 0.811278124
<i>Entropy</i> (32)	$= \left(-\frac{3}{10} * \log_2 \left(\frac{3}{10}\right)\right) + \left(-\frac{7}{10} * \log_2 \left(\frac{7}{10}\right)\right)$	= 0.881290899

(Lanjutan) **Tabel 6** Perhitungan Entropy *Node 1* *Attribut* Usia

Attribut Usia	Perhitungan	Nilai Entropy
<i>Entropy</i> (33)	$= \left(-\frac{3}{4} * \log_2 \left(\frac{3}{4}\right)\right) + \left(-\frac{1}{4} * \log_2 \left(\frac{1}{4}\right)\right)$	= 0.811278124
<i>Entropy</i> (34)	$= \left(-\frac{0}{5} * \log_2 \left(\frac{0}{5}\right)\right) + \left(-\frac{5}{5} * \log_2 \left(\frac{5}{5}\right)\right)$	= 0
<i>Entropy</i> (35)	$= \left(-\frac{1}{9} * \log_2 \left(\frac{1}{9}\right)\right) + \left(-\frac{8}{9} * \log_2 \left(\frac{8}{9}\right)\right)$	= 0.503258335
<i>Entropy</i> (36)	$= \left(-\frac{2}{7} * \log_2 \left(\frac{2}{7}\right)\right) + \left(-\frac{5}{7} * \log_2 \left(\frac{5}{7}\right)\right)$	= 0.863120569
<i>Entropy</i> (37)	$= \left(-\frac{0}{6} * \log_2 \left(\frac{0}{6}\right)\right) + \left(-\frac{6}{6} * \log_2 \left(\frac{6}{6}\right)\right)$	= 0
<i>Entropy</i> (38)	$= \left(-\frac{1}{5} * \log_2 \left(\frac{1}{5}\right)\right) + \left(-\frac{4}{5} * \log_2 \left(\frac{4}{5}\right)\right)$	= 0.721928095
<i>Entropy</i> (39)	$= \left(-\frac{0}{5} * \log_2 \left(\frac{0}{5}\right)\right) + \left(-\frac{5}{5} * \log_2 \left(\frac{5}{5}\right)\right)$	= 0
<i>Entropy</i> (40)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (41)	$= \left(-\frac{0}{3} * \log_2 \left(\frac{0}{3}\right)\right) + \left(-\frac{3}{3} * \log_2 \left(\frac{3}{3}\right)\right)$	= 0
<i>Entropy</i> (42)	$= \left(-\frac{1}{6} * \log_2 \left(\frac{1}{6}\right)\right) + \left(-\frac{5}{6} * \log_2 \left(\frac{5}{6}\right)\right)$	= 0.650022422
<i>Entropy</i> (43)	$= \left(-\frac{0}{4} * \log_2 \left(\frac{0}{4}\right)\right) + \left(-\frac{4}{4} * \log_2 \left(\frac{4}{4}\right)\right)$	= 0
<i>Entropy</i> (44)	$= \left(-\frac{0}{6} * \log_2 \left(\frac{0}{6}\right)\right) + \left(-\frac{6}{6} * \log_2 \left(\frac{6}{6}\right)\right)$	= 0
<i>Entropy</i> (45)	$= \left(-\frac{0}{2} * \log_2 \left(\frac{0}{2}\right)\right) + \left(-\frac{2}{2} * \log_2 \left(\frac{2}{2}\right)\right)$	= 0
<i>Entropy</i> (46)	$= \left(-\frac{9}{9} * \log_2 \left(\frac{9}{9}\right)\right) + \left(-\frac{9}{9} * \log_2 \left(\frac{9}{9}\right)\right)$	= 0
<i>Entropy</i> (47)	$= \left(-\frac{9}{9} * \log_2 \left(\frac{9}{9}\right)\right) + \left(-\frac{9}{9} * \log_2 \left(\frac{9}{9}\right)\right)$	= 0
<i>Entropy</i> (48)	$= \left(-\frac{9}{9} * \log_2 \left(\frac{9}{9}\right)\right) + \left(-\frac{9}{9} * \log_2 \left(\frac{9}{9}\right)\right)$	= 0
<i>Entropy</i> (49)	$= \left(-\frac{0}{3} * \log_2 \left(\frac{0}{3}\right)\right) + \left(-\frac{3}{3} * \log_2 \left(\frac{3}{3}\right)\right)$	= 0

(Lanjutan) **Tabel 6** Perhitungan Entropy *Node 1* Atribut Usia

Atribut Usia	Perhitungan	Nilai Entropy
<i>Entropy</i> (50)	$= \left(-\frac{0}{4} * \log_2 \left(\frac{0}{4}\right)\right) + \left(-\frac{4}{4} * \log_2 \left(\frac{4}{4}\right)\right)$	= 0
<i>Entropy</i> (51)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (52)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0
<i>Entropy</i> (53)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0

Tabel 7 Perhitungan Entropy *Node 1.1* Atribut Jenis Kelamin

Atribut Jenis Kelamin	Perhitungan	Nilai Entropy
<i>Entropy</i> (Laki-Laki)	$= \left(-\frac{7}{7} * \log_2 \left(\frac{7}{7}\right)\right) + \left(-\frac{0}{7} * \log_2 \left(\frac{0}{7}\right)\right)$	= 0
<i>Entropy</i> (Perempuan)	$= \left(-\frac{10}{12} * \log_2 \left(\frac{10}{12}\right)\right) + \left(-\frac{2}{12} * \log_2 \left(\frac{2}{12}\right)\right)$	= 0.650022422

Tabel 8 Perhitungan Entropy *Node 1.1* Atribut Jenis Kelamin

Atribut Tempat Asal	Perhitungan	Nilai Entropy
<i>Entropy</i> (Bantul)	$= \left(-\frac{2}{2} * \log_2 \left(\frac{2}{2}\right)\right) + \left(-\frac{0}{2} * \log_2 \left(\frac{0}{2}\right)\right)$	= 0
<i>Entropy</i> (Boyolali)	$= \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right) + \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right)$	= 0
<i>Entropy</i> (Jakarta)	$= \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right) + \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right)$	= 1
<i>Entropy</i> (Klaten)	$= \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right) + \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right)$	= 0
<i>Entropy</i> (Kulon Progo)	$= \left(-\frac{2}{2} * \log_2 \left(\frac{2}{2}\right)\right) + \left(-\frac{0}{2} * \log_2 \left(\frac{0}{2}\right)\right)$	= 0
<i>Entropy</i> (Singaraja)	$= \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right) + \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right)$	= 0

(Lanjutan) **Tabel 8** Perhitungan *Entropy Node 1.1* *Atribut Jenis Kelamin*

Atribut Tempat Asal	Perhitungan	Nilai Entropy
<i>Entropy</i> (Sleman)	$= \left(-\frac{3}{3} * \log_2 \left(\frac{3}{3}\right)\right) + \left(-\frac{0}{3} * \log_2 \left(\frac{0}{3}\right)\right)$	= 0
<i>Entropy</i> (Sragen)	$= \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right) + \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right)$	= 0
<i>Entropy</i> (Yogyakarta)	$= \left(-\frac{5}{6} * \log_2 \left(\frac{5}{6}\right)\right) + \left(-\frac{1}{6} * \log_2 \left(\frac{1}{6}\right)\right)$	= 0.650022422

Tabel 9 Perhitungan *Entropy Node 1.1* *Atribut Usia*

Atribut Tempat Asal	Perhitungan	Nilai Entropy
<i>Entropy</i> (28)	$= \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right) + \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right)$	= 0
<i>Entropy</i> (29)	$= \left(-\frac{3}{3} * \log_2 \left(\frac{3}{3}\right)\right) + \left(-\frac{0}{3} * \log_2 \left(\frac{0}{3}\right)\right)$	= 0
<i>Entropy</i> (30)	$= \left(-\frac{5}{5} * \log_2 \left(\frac{5}{5}\right)\right) + \left(-\frac{0}{5} * \log_2 \left(\frac{0}{5}\right)\right)$	= 0
<i>Entropy</i> (32)	$= \left(-\frac{2}{2} * \log_2 \left(\frac{2}{2}\right)\right) + \left(-\frac{0}{2} * \log_2 \left(\frac{0}{2}\right)\right)$	= 0
<i>Entropy</i> (33)	$= \left(-\frac{2}{2} * \log_2 \left(\frac{2}{2}\right)\right) + \left(-\frac{0}{2} * \log_2 \left(\frac{0}{2}\right)\right)$	= 0
<i>Entropy</i> (35)	$= \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right) + \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right)$	= 1
<i>Entropy</i> (36)	$= \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right) + \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right)$	= 0
<i>Entropy</i> (38)	$= \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right) + \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right)$	= 0
<i>Entropy</i> (42)	$= \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right) + \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right)$	= 1

Tabel 10 Perhitungan *Entropy Node 1.1.2* *Atribut* Jenis Kelamin

<i>Atribut</i> Jenis Kelamin	Perhitungan	Nilai <i>Entropy</i>
<i>Entropy</i> (Laki-Laki)	$= \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right) + \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right)$	= 0
<i>Entropy</i> (Perempuan)	$= \left(-\frac{0}{1} * \log_2 \left(\frac{0}{1}\right)\right) + \left(-\frac{1}{1} * \log_2 \left(\frac{1}{1}\right)\right)$	= 0

Tabel 11 Perhitungan *Entropy Node 1.1.2* *Atribut* Tempat Asal

<i>Atribut</i> Tempat Asal	Perhitungan	Nilai <i>Entropy</i>
<i>Entropy</i> Yogyakarta	$= \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right) + \left(-\frac{1}{2} * \log_2 \left(\frac{1}{2}\right)\right)$	= 1

Lampiran 3. Perhitungan Gain Node 1, Node 1.1, dan Node 1.1.2

Tabel 12 Perhitungan Gain Node 1 Atribut Lama Kerja

<i>Atribut Jenis Kelamin</i>	<i>Gain</i> (Total, Jenis Kelamin)
Perhitungan	$= 0.730601213 - \left(\left(\frac{19}{137} * 0.485460761 \right) + \left(\frac{14}{137} * 0.985228136 \right) + \left(\frac{10}{137} * 0.721928095 \right) + \left(\frac{6}{137} * 0.650022422 \right) + \left(\frac{10}{137} * 0 \right) + \left(\frac{4}{137} * 0 \right) + \left(\frac{11}{137} * 0 \right) + \left(\frac{3}{137} * 0 \right) + \left(\frac{8}{137} * 0 \right) + \left(\frac{3}{137} * 0 \right) + \left(\frac{9}{137} * 0 \right) + \left(\frac{2}{137} * 0 \right) + \left(\frac{5}{137} * 0 \right) + \left(\frac{5}{137} * 0 \right) + \left(\frac{3}{137} * 0 \right) + \left(\frac{5}{137} * 0 \right) + \left(\frac{2}{137} * 0 \right) + \left(\frac{6}{137} * 0 \right) + \left(\frac{2}{137} * 0 \right) + \left(\frac{3}{137} * 0 \right) + \left(\frac{7}{137} * 0 \right) \right)$
Nilai Gain	= 0.481430674

Tabel 13 Perhitungan *Gain Node 1 Atribut Tempat Asal*

Atribut Tempat Asal	<i>Gain</i> (Total, Tempat Asal)
Perhitungan	$ \begin{aligned} &= 0.730601213 - \left(\left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \right. \\ &\left(\frac{1}{137} * 0 \right) + \left(\frac{12}{137} * 0.811278124 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \\ &\left(\frac{1}{137} * 0 \right) + \left(\frac{2}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{2}{137} * 1 \right) + \left(\frac{1}{137} * 0 \right) + \\ &\left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{3}{137} * 0 \right) + \left(\frac{2}{137} * 0 \right) + \\ &\left(\frac{3}{137} * 0 \right) + \left(\frac{4}{137} * 0.811278124 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \\ &\left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{3}{137} * 0 \right) + \\ &\left(\frac{3}{137} * 0 \right) + \left(\frac{2}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \\ &\left(\frac{2}{137} * 1 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \\ &\left(\frac{2}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{3}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{14}{137} * \right. \\ &0.749595257 \left. \right) + \left(\frac{2}{137} * 1 \right) + \left(\frac{2}{137} * 0 \right) + \left(\frac{2}{137} * 0 \right) + \\ &\left(\frac{6}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{2}{137} * 1 \right) + \left(\frac{36}{137} * \right. \\ &0.710676854 \left. \right) \left. \right) \end{aligned} $
Nilai <i>Gain</i>	= 0.183850926

Tabel 14 Perhitungan *Gain Node 1* *Attribut* Usia

Attribut Usia	<i>Gain</i> (Total, Usia)
Perhitungan	$= 0.730601213 - \left(\left(\frac{3}{137} * 0.918295834 \right) + \left(\frac{6}{137} * 0.918295834 \right) + \left(\frac{14}{137} * 0.863120569 \right) + \left(\frac{4}{137} * 0.811278124 \right) + \left(\frac{10}{137} * 0.881290899 \right) + \left(\frac{4}{137} * 0.811278124 \right) + \left(\frac{5}{137} * 0 \right) + \left(\frac{9}{137} * 0.503258335 \right) + \left(\frac{7}{137} * 0.863120569 \right) + \left(\frac{6}{137} * 0 \right) + \left(\frac{5}{137} * 0.721928095 \right) + \left(\frac{5}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{3}{137} * 0 \right) + \left(\frac{6}{137} * 0.650022422 \right) + \left(\frac{4}{137} * 0 \right) + \left(\frac{6}{137} * 0 \right) + \left(\frac{2}{137} * 0 \right) + \left(\frac{9}{137} * 0 \right) + \left(\frac{9}{137} * 0 \right) + \left(\frac{9}{137} * 0 \right) + \left(\frac{3}{137} * 0 \right) + \left(\frac{4}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) + \left(\frac{1}{137} * 0 \right) \right)$
Nilai <i>Gain</i>	= 0.338393706

Tabel 15 Perhitungan *Gain Node 1.1* *Attribut* Jenis Kelamin

Attribut Jenis Kelamin	<i>Gain</i> (Lama Kerja 1, Jenis Kelamin)
Perhitungan	$= 0.485460761 - \left(\left(\frac{7}{19} * 0 \right) + \left(\frac{12}{19} * 0.650022422 \right) \right)$
Nilai <i>Gain</i>	= 0.074920284

Tabel 16 Perhitungan *Gain Node 1.1 Atribut Tempat Asal*

Atribut Tempat Asal	<i>Gain</i> (Lama Kerja 1, Tempat Asal)
Perhitungan	$= 0.485460761 - \left(\left(\frac{2}{19} * 0 \right) + \left(\frac{1}{19} * 0 \right) + \left(\frac{2}{19} * 1 \right) + \left(\frac{1}{19} * 0 \right) + \left(\frac{2}{19} * 0 \right) + \left(\frac{1}{19} * 0 \right) + \left(\frac{3}{19} * 0 \right) + \left(\frac{3}{19} * 0 \right) + \left(\frac{1}{19} * 0 \right) + \left(\frac{6}{19} * 0.650022422 \right) \right)$
Nilai Gain	= 0.174927365

Tabel 17 Perhitungan *Gain Node 1.1 Atribut Usia*

Atribut Usia	<i>Gain</i> (Lama Kerja 1, Usia)
Perhitungan	$= 0.485460761 - \left(\left(\frac{1}{19} * 0 \right) + \left(\frac{3}{19} * 0 \right) + \left(\frac{5}{19} * 1 \right) + \left(\frac{2}{19} * 0 \right) + \left(\frac{2}{19} * 0 \right) + \left(\frac{2}{19} * 1 \right) + \left(\frac{1}{19} * 0 \right) + \left(\frac{1}{19} * 0 \right) + \left(\frac{2}{19} * 1 \right) \right)$
Nilai Gain	= 0.274934445

Tabel 18 Perhitungan *Gain Node 1.1.2 Atribut Jenis Kelamin*

Atribut Jenis Kelamin	<i>Gain</i> (Usia 35, Jenis Kelamin)
Perhitungan	$= 1 - \left(\left(\frac{1}{2} * 0 \right) + \left(\frac{1}{2} * 0 \right) \right)$
Nilai Gain	= 1

Tabel 19 Perhitungan *Gain* 1.1.2 *Attribut* Tempat Asal

<i>Attribut</i> Tempat asal	<i>Gain</i> (Usia 35, Tempat Asal)
Perhitungan	$= 1 - \left(\left(\frac{2}{2} * 1 \right) \right)$
Nilai <i>Gain</i>	= 0