

## LAMPIRAN A

### *TAGSET*

VB	-	Verb
NN	-	Noun
NNS	-	Noun Plural
JJ	-	Adjective
IN	-	Preposition/Subordinate Conjunction
CC	-	Conjunction
RB	-	Adverb
PRP	-	Personal Pronoun
NNP	-	Proper Noun
DT	-	Determiner
CD	-	Cardinal Number
FW	-	Foreign Word
MD	-	Modal
WRB	-	Wh- Adverb
RP	-	Particle
UH	-	Interjection
"	-	Quote
,	-	Comma
.	-	Sentence Final Punctuation
(	-	Left Parenthesis
)	-	Right Parenthesis

## LAMPIRAN B

### *FEATURE TEMPLATE*

Cetakan fitur 1

# *Unigram*

U00:%x[-3,0]

U01:%x[-2,0]

U02:%x[-1,0]

U03:%x[0,0]

U05:%x[1,0]

U05:%x[2,0]

U05:%x[3,0]

U06:%x[-1,0]/%x[0,0]

U07:%x[0,0]/%x[1,0]

U11:%x[-3,0]/%x[-2,0]

U12:%x[-2,0]/%x[-1,0]

U13:%x[-3,0]/%x[-1,0]

U14:%x[3,0]/%x[2,0]

U15:%x[2,0]/%x[1,0]

U16:%x[3,0]/%x[1,0]

# *Bigram*

B

## Cetakan fitur 2

# *Unigram*

U01:%x[-2,0]

U02:%x[-1,0]

U03:%x[0,0]

U05:%x[1,0]

U05:%x[2,0]

U06:%x[-1,0]/%x[0,0]

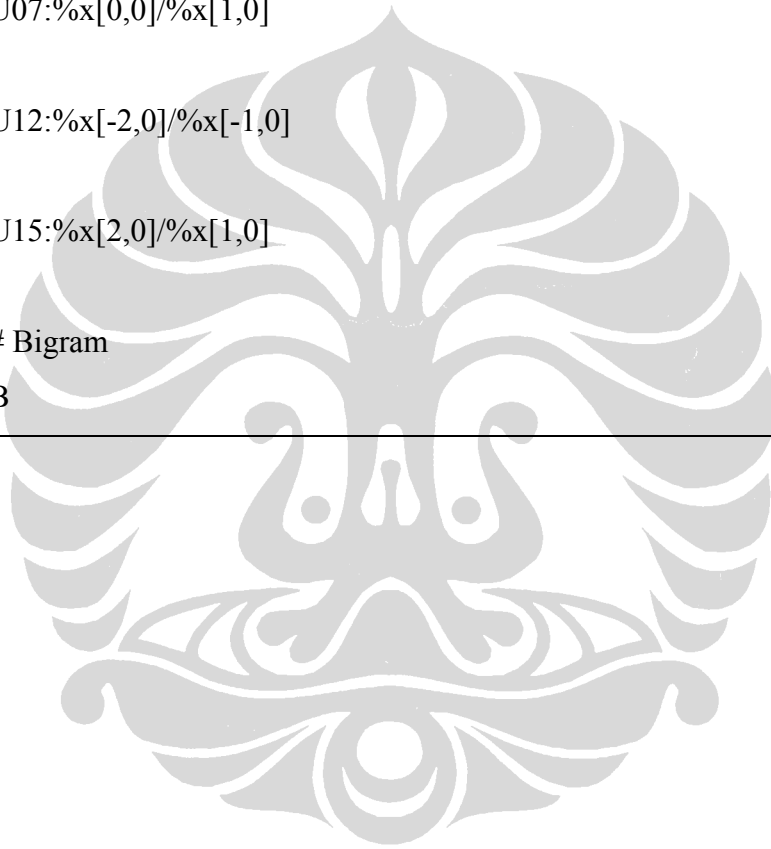
U07:%x[0,0]/%x[1,0]

U12:%x[-2,0]/%x[-1,0]

U15:%x[2,0]/%x[1,0]

# *Bigram*

B



## Cetakan fitur 3

```
# Unigram
```

```
U01:%x[-2,0]
```

```
U02:%x[-1,0]
```

```
U03:%x[0,0]
```

```
U05:%x[1,0]
```

```
U05:%x[2,0]
```

```
U06:%x[-1,0]/%x[0,0]
```

```
U07:%x[0,0]/%x[1,0]
```

```
U12:%x[-2,0]/%x[-1,0]
```

```
U13:%x[-2,0]/%x[0,0]
```

```
U14:%x[2,0]/%x[0,0]
```

```
U15:%x[2,0]/%x[1,0]
```

```
# Bigram
```

```
B
```

## Cetakan fitur 4

```
# Unigram
```

```
U01:%x[-2,0]
```

```
U02:%x[-1,0]
```

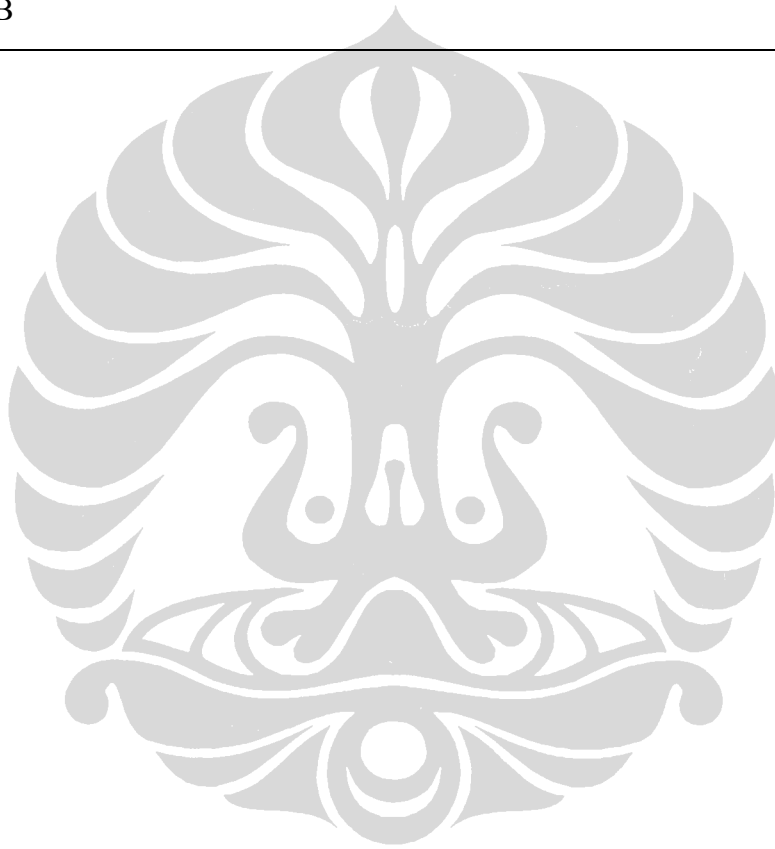
```
U03:%x[0,0]
```

```
U05:%x[1,0]
```

```
U05:%x[2,0]
```

```
# Bigram
```

```
B
```



## LAMPIRAN C

### TABEL KESALAHAN *TAGGING*

Mistag: CRF dengan cetakan fitur 1

<b>Correct Tag</b>	<b>Wrong Tag</b>	<b>Occurrence</b>
VB	NN	84
NNP	NN	73
JJ	NN	64
NN	NNP	48
RB	NN	36
IN	NN	32
CD	NN	23
JJ	VB	16
NN	VB	16
VB	NNP	15
JJ	NNP	13
CC	NN	8
NNS	NN	8
IN	VB	7
PRP	NN	7
RB	VB	7
IN	NNP	6
VB	RB	6
FW	NN	4
IN	RB	4
NNP	VB	4
CC	NNP	3
CC	RB	3
CD	VB	3
FW	NNP	3
NN	RB	3
RB	NNP	3
TO	NN	3
TO	VB	3
VB	IN	3
CC	VB	2

DT	NN	2
IN	CC	2
JJ	IN	2
NN	CD	2
NN	JJ	2
PRP	NNP	2
PRP	VB	2
RB	IN	2
RP	NN	2
VB	JJ	2
"	NNP	1
5	5	1
CC	IN	1
CD	NNP	1
DT	CD	1
JJ	DT	1
JJ	RB	1
MD	RB	1
NN	.	1
NN	IN	1
NNP	CC	1
NNP	JJ	1
PRP	RB	1
RB	JJ	1
RP	NNP	1
TO	IN	1
WP	NN	1
WRB	CC	1
WRB	NN	1

Mistag: CRF dengan cetakan fitur 2

<b>Correct Tag</b>	<b>Wrong Tag</b>	<b>Occurrence</b>
VB	NN	82
NNP	NN	71
JJ	NN	57
NN	NNP	44
RB	NN	27
IN	NN	25
CD	NN	20
JJ	VB	17
VB	NNP	12
NN	VB	11
JJ	NNP	10
NNS	NN	8
PRP	NN	8
CC	NN	7
IN	VB	7
RB	VB	6
IN	NNP	5
RB	NNP	5
VB	RB	5
FW	NN	4
NN	JJ	4
NN	RB	4
CC	NNP	3
FW	NNP	3
IN	RB	3
JJ	RB	3
TO	VB	3
VB	IN	3
CD	VB	2
DT	NN	2
IN	CC	2
NN	CD	2
NNP	VB	2
PRP	NNP	2
TO	NN	2



VB	JJ	2
5	5	1
CC	IN	1
CC	RB	1
CD	NNP	1
DT	CD	1
JJ	DT	1
JJ	IN	1
JJ	PRP	1
MD	RB	1
NN	.	1
NNP	CC	1
PRP	VB	1
RB	IN	1
RB	JJ	1
RP	NN	1
RP	NNP	1
RP	RB	1
TO	IN	1
WP	NN	1
WRB	NN	1

Mistag: CRF dengan cetakan fitur 3

<b>Correct Tag</b>	<b>Wrong Tag</b>	<b>Occurrence</b>
VB	NN	82
NNP	NN	72
JJ	NN	59
NN	NNP	45
RB	NN	30
IN	NN	24
CD	NN	21
JJ	VB	16
VB	NNP	12
NN	VB	11
JJ	NNP	10
CC	NN	8
NNS	NN	8
PRP	NN	8
IN	VB	7
RB	VB	7
IN	NNP	6
RB	NNP	5
VB	RB	5
FW	NN	4
NN	RB	4
FW	NNP	3
IN	RB	3
JJ	RB	3
TO	NN	3
TO	VB	3
VB	IN	3
CC	NNP	2
CC	RB	2
CD	VB	2
DT	NN	2
IN	CC	2
NN	CD	2
NN	JJ	2
NNP	VB	2

PRP	NNP	2
VB	JJ	2
)	VB	1
5	5	1
CC	IN	1
CD	NNP	1
DT	CD	1
IN	JJ	1
JJ	DT	1
JJ	IN	1
MD	RB	1
NN	.	1
NNP	CC	1
PRP	VB	1
RB	JJ	1
RP	NN	1
RP	NNP	1
RP	RB	1
TO	IN	1
WP	NN	1
WRB	NN	1

Mistag: CRF dengan cetakan fitur 4

<b>Correct Tag</b>	<b>Wrong Tag</b>	<b>Occurrence</b>
VB	NN	62
NNP	NN	53
JJ	NN	45
NN	NNP	43
RB	NN	21
JJ	VB	17
NN	VB	17
CD	NN	13
IN	NN	13
VB	NNP	13
JJ	NNP	10
IN	VB	9
NNS	NN	8
PRP	NN	7
IN	NNP	6
NN	JJ	6
RB	VB	6
VB	RB	6
CC	NN	5
RB	NNP	5
VB	IN	5
FW	NN	4
IN	RB	4
NN	RB	4
CC	NNP	3
CD	NNP	3
CD	VB	3
FW	NNP	3
JJ	RB	3
IN	CC	2
IN	JJ	2
NNP	VB	2
RB	IN	2
RB	JJ	2
VB	JJ	2

	5	5	1
CC		IN	1
CC		JJ	1
CC		RB	1
DT		NN	1
DT		VB	1
JJ		CD	1
JJ		DT	1
JJ		IN	1
JJ		PRP	1
MD		RB	1
NN		.	1
NN		CD	1
NNP		CC	1
NNP		JJ	1
NNP		PRP	1
PRP		VB	1
RP		NN	1
RP		NNP	1
RP		RB	1
TO		NN	1
TO		VB	1
WP		NN	1
WRB		NN	1

Mistag: TBL dengan fature Lexicon

<b>Correct Tag</b>	<b>Wrong Tag</b>	<b>Occurrence</b>
VB	NN	101
NN	NNP	62
JJ	NN	28
CD	NN	14
RB	NN	10
VB	NNP	7
NNS	NN	7
NNP	NN	7
RB	IN	6
NN	JJ	6
JJ	NNP	6
RB	JJ	5
VB	RB	4
VB	JJ	4
VB	IN	4
JJ	VB	4
RB	VB	3
RB	NNP	3
NN	VB	3
IN	RB	3
FW	NNP	3
FW	NN	3
CD	NNP	3
JJ	IN	2
IN	RP	2
IN	NNP	2
IN	NN	2
IN	CC	2
CC	NN	2
WP	WRB	1
RP	RB	1
RP	NNP	1
RB	CC	1
PRP	NN	1
NNP.	NNP.	1

NNP	RB		1
NNP	CC		1
NN	RB		1
NN	IN		1
NN	DT		1
MD	RB		1
JJ	RB		1
JJ	DT		1
JJ	CD		1
IN	WRB		1
IN	VB		1
IN	JJ		1
DT	RB		1
CC	VB		1
CC	RB		1
CC	IN		1
	8	8	1
	5	5	1
	NNP		1

Mistag: TBL dengan feature Lexicon dan Lexical *Rule*

<b>Correct Tag</b>	<b>Wrong Tag</b>	<b>Occurrence</b>
NN	NNP	49
VB	NN	23
JJ	NN	20
NNP	NN	11
NN	JJ	9
RB	JJ	8
JJ	VB	7
VB	NNP	6
RB	IN	6
JJ	NNP	6
NN	VB	5
VB	RB	4
VB	JJ	4
VB	IN	4
RB	VB	4
RB	NNP	3
RB	NN	3
NNP	VB	3
JJ	RB	3
IN	RB	3
FW	NNP	3
FW	NN	3
NNP	RB	2
NN	RB	2
JJ	IN	2
IN	RP	2
IN	NNP	2
IN	JJ	2
IN	CC	2
CC	NN	2
WP	WRB	1
RP	RB	1
RP	NNP	1
RB	NNS	1



RB	CC		1
PRP	NN		1
NNP.	NNP.		1
NNP	CC		1
NN	NNS		1
NN	IN		1
NN	DT		1
MD	RB		1
JJ	NNS		1
JJ	DT		1
JJ	CD		1
IN	WRB		1
IN	VB		1
IN	NN		1
DT	RB		1
CD	JJ		1
CC	VB		1
CC	RB		1
CC	IN		1
	5	5	1
.	NNP		1

## Mistag: TBL dengan feature Lexicon dan Contextual Rule

<b>Correct Tag</b>	<b>Wrong Tag</b>	<b>Occurrence</b>
VB	NN	87
NN	NNP	34
JJ	NN	30
VB	JJ	17
CD	NN	14
RB	NN	12
NNP	NN	9
NN	JJ	8
NNS	NN	7
JJ	RB	7
RB	IN	6
VB	RB	4
VB	NNP	4
VB	IN	4
RB	JJ	4
NN	VB	4
JJ	VB	4
JJ	NNP	4
IN	NN	4
RB	VB	3
IN	RB	3
FW	NNP	3
FW	NN	3
CD	NNP	3
JJ	IN	2
IN	RP	2
IN	CC	2
CC	NN	2
WP	WRB	1
RP	RB	1
RP	NNP	1
RB	NNP	1
RB	CC	1
PRP	NN	1
NNP.	NNP.	1

NNP	RB		1
NNP	CC		1
NN	RB		1
NN	IN		1
NN	DT		1
MD	RB		1
JJ	DT		1
JJ	CD		1
IN	WRB		1
IN	VB		1
IN	JJ		1
DT	RB		1
CC	VB		1
CC	RB		1
CC	IN		1
	8	8	1
	5	5	1
.	NNP		1

Mistag: TBL dengan feature Lexicon, Lexical *Rule*, dan Contextual *Rule*

<b>Correct Tag</b>	<b>Wrong Tag</b>	<b>Occurrence</b>
NN	NNP	31
JJ	NN	24
VB	NN	21
NNP	NN	12
NN	JJ	11
JJ	RB	9
JJ	VB	7
RB	JJ	7
NN	VB	6
RB	IN	6
RB	NN	5
VB	RB	5
JJ	NNP	4
RB	VB	4
VB	IN	4
VB	JJ	4
FW	NN	3
FW	NNP	3
IN	NN	3
IN	RB	3
NNP	VB	3
VB	NNP	3
CC	NN	2
IN	CC	2
IN	JJ	2
IN	RP	2
JJ	IN	2
NN	RB	2
NNP	RB	2
.	NNP	1
5	5	1
CC	IN	1
CC	RB	1
CC	VB	1
CD	JJ	1

DT	RB	1
IN	VB	1
IN	WRB	1
JJ	CD	1
JJ	DT	1
JJ	NNS	1
MD	RB	1
NN	DT	1
NN	IN	1
NN	NNS	1
NNP	CC	1
NNP.	NNP.	1
PRP	NN	1
RB	CC	1
RB	NNP	1
RB	NNS	1
RP	NNP	1
RP	RB	1
WP	WRB	1

Mistag: CRF-TBL dengan cetakan fitur 1

<b>Correct Tag</b>	<b>Wrong Tag</b>	<b>Occurrence</b>
NN	VB	33
VB	NN	31
JJ	NN	23
NN	NNP	22
NNP	NN	15
RB	NN	14
IN	VB	13
JJ	VB	11
NN	JJ	11
IN	NN	8
NNP	VB	8
NNS	NN	8
VB	JJ	8
RB	VB	7
CC	NN	6
VB	RB	6
CD	NN	5
RB	JJ	5
CC	RB	4
CC	VB	4
FW	NN	4
IN	NNP	4
IN	RB	4
NN	CD	4
NN	IN	4
PRP	NN	4
PRP	VB	4
CD	VB	3
JJ	NNP	3
NNP	CC	3
PRP	NNP	3
TO	NN	3
VB	NNP	3
CC	IN	2
CC	NNP	2

FW	NNP	2
IN	CC	2
IN	JJ	2
JJ	IN	2
NN	CC	2
NN	RB	2
NNP	JJ	2
RB	IN	2
RB	NNP	2
TO	IN	2
TO	VB	2
VB	IN	2
"	NNP	1
5	5	1
CD	NNP	1
CD	RB	1
DT	CD	1
DT	IN	1
DT	JJ	1
DT	RB	1
FW	VB	1
JJ	CC	1
JJ	CD	1
JJ	DT	1
JJ	RB	1
MD	RB	1
NN	.	1
PRP	RB	1
RP	IN	1
RP	NN	1
RP	NNP	1
WP	NN	1
WRB	CC	1
WRB	NN	1

Mistag: CRF-TBL dengan cetakan fitur 2

<b>Correct Tag</b>	<b>Wrong Tag</b>	<b>Occurrence</b>
NN	NNP	29
VB	NN	22
NN	VB	21
IN	VB	14
JJ	NN	14
IN	NN	11
NNP	NN	10
RB	JJ	9
RB	VB	9
NN	CD	8
NN	JJ	8
NNS	NN	8
PRP	NN	8
JJ	VB	7
RB	NN	7
VB	RB	7
NN	RB	6
FW	NN	5
RB	NNP	5
CC	NN	4
IN	JJ	4
NNP	VB	4
VB	IN	4
VB	JJ	4
VB	NNP	4
CC	RB	3
CC	VB	3
CD	NNP	3
IN	NNP	3
JJ	NNP	3
JJ	RB	3
NNP	JJ	3
PRP	VB	3
CC	IN	2
CC	NNP	2



CD	NN	2
CD	RB	2
CD	VB	2
FW	NNP	2
IN	CC	2
IN	RB	2
NN	IN	2
PRP	NNP	2
RB	IN	2
TO	IN	2
TO	NN	2
TO	VB	2
5	5	1
DT	CD	1
DT	IN	1
DT	NN	1
JJ	CD	1
JJ	DT	1
JJ	IN	1
JJ	PRP	1
MD	RB	1
NN	.	1
NNP	CC	1
PRP	RB	1
RP	NN	1
RP	NNP	1
RP	RB	1
WP	NN	1
WRB	NN	1

Mistag: CRF-TBL dengan cetakan fitur 3

<b>Correct Tag</b>	<b>Wrong Tag</b>	<b>Occurrence</b>
NN	NNP	28
NN	VB	21
VB	NN	19
NN	JJ	14
JJ	NN	13
IN	VB	10
NNP	NN	10
RB	NN	10
RB	JJ	9
RB	VB	9
VB	RB	9
NN	RB	8
NNS	NN	8
IN	NN	7
NNP	VB	6
PRP	NN	6
VB	NNP	6
FW	NN	5
IN	NNP	5
IN	RB	5
JJ	VB	5
NN	CD	5
CC	NN	4
IN	JJ	4
JJ	NNP	4
CC	NNP	3
CC	RB	3
JJ	RB	3
NN	IN	3
PRP	NNP	3
PRP	VB	3
RB	NNP	3
TO	VB	3
VB	IN	3
VB	JJ	3

CC	IN	2
CC	VB	2
CD	NN	2
CD	NNP	2
CD	VB	2
DT	IN	2
FW	NNP	2
IN	CC	2
NN	PRP	2
NNP	JJ	2
PRP	RB	2
TO	IN	2
TO	NN	2
)	VB	1
5	5	1
CD	RB	1
DT	CD	1
JJ	CD	1
JJ	DT	1
JJ	IN	1
MD	RB	1
NN	.	1
NNP	CC	1
NNP	RB	1
RB	IN	1
RP	IN	1
RP	NNP	1
RP	RB	1
WP	NN	1
WRB	NN	1

Mistag: CRF-TBL dengan cetakan fitur 4

<b>Correct Tag</b>	<b>Wrong Tag</b>	<b>Occurrence</b>
NN	NNP	32
JJ	NN	22
NN	VB	21
VB	NN	21
NNP	NN	17
JJ	RB	14
NN	RB	11
VB	RB	11
IN	NN	9
IN	RB	9
JJ	NNP	9
NN	JJ	8
NNS	NN	8
RB	NNP	8
IN	VB	7
JJ	VB	7
RB	NN	7
IN	NNP	6
RB	VB	6
VB	NNP	6
CD	NN	5
FW	NN	5
CC	NN	4
CD	VB	4
RB	IN	4
VB	IN	4
CC	NNP	3
CD	NNP	3
NN	CD	3
PRP	NN	3
CC	IN	2
CC	VB	2
IN	CC	2
IN	JJ	2
JJ	IN	2

NNP	JJ	2
NNP	VB	2
PRP	NNP	2
VB	CD	2
CC	JJ	1
CC	RB	1
CD	IN	1
CD	RB	1
DT	IN	1
DT	VB	1
JJ	DT	1
JJ	PRP	1
MD	RB	1
NN	.	1
NN	IN	1
NN	NNS	1
NNP	CC	1
NNP	PRP	1
PRP	VB	1
RB	JJ	1
RP	NN	1
RP	NNP	1
RP	RB	1
TO	NN	1
TO	VB	1
VB	JJ	1
WP	NN	1
WRB	NNP	1