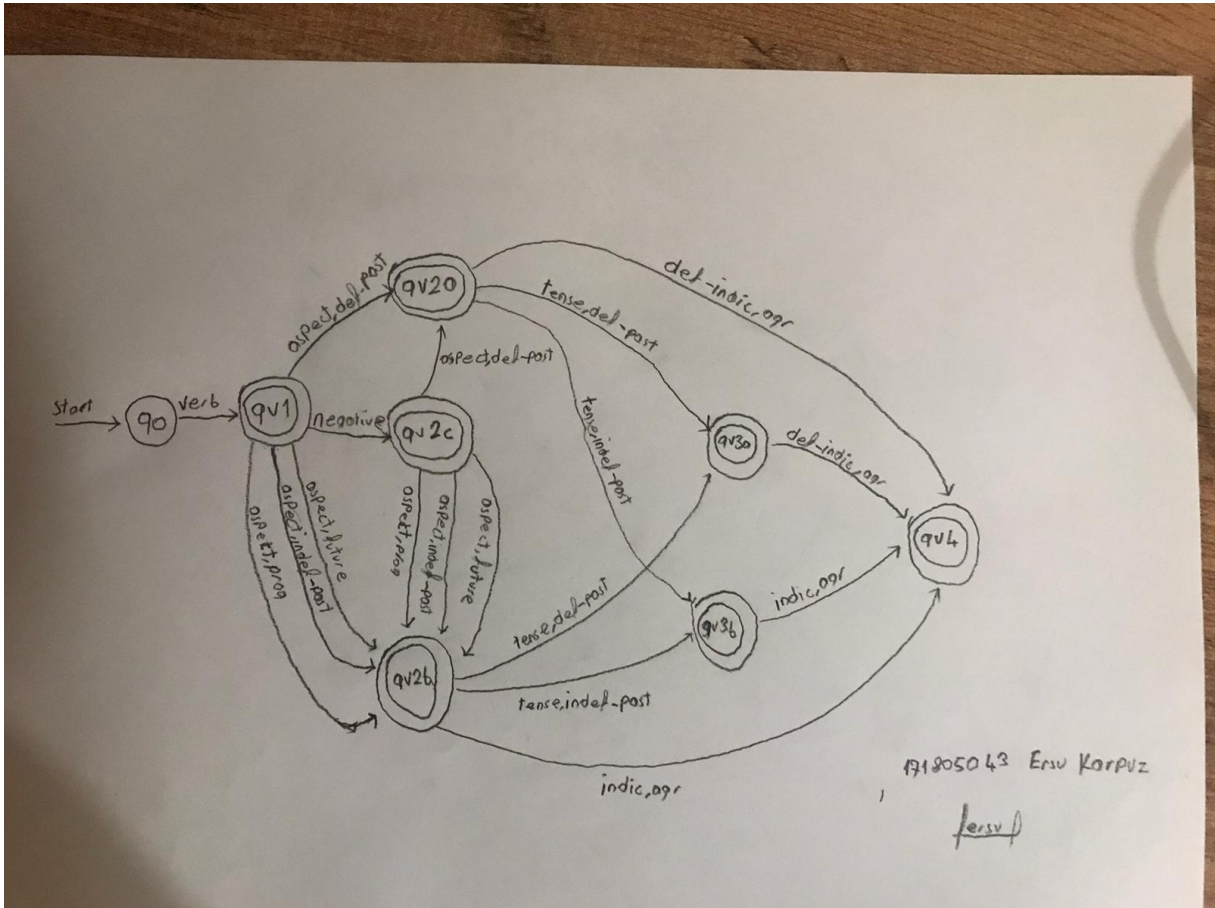


Natural Language Processing Mid-Term

1)

Bir adam sabaha karşı okyanus kenarında yürüyormuş. Birden binlerce deniz yıldızının karaya vurduğunu görmüş. Daha da yaklaştığı zaman bir çocuk fark etmiş. Çocuk deniz yıldızlarını tek tek alarak denize geri götürmüyordum. Adam çocuğa yaklaşarak sormuş:

2)



3)

initial(q0).

final(qv1).

final(qv2a).

final(qv2b).

final(qv2c).

final(qv3a).

final(qv3b).

final(qv4).

t(q0,verb,qv1).

t(qv1,ng,qv2c).

t(qv2c,aspectdef-past, qv2a).

t(qv2c,aspectfuture,qv2b).

t(qv2c,aspectprog,qv2b).

t(qv2c,aspectindef-past,qv2b).

t(qv1,aspectdef-past,qv2a).

t(qv1,aspectfuture,qv2b).

t(qv1,aspectindef-past,qv2b).

t(qv1,aspectprog,qv2b).

t(qv2a,tensedef-past,qv3a).

t(qv2a,tenseindef-past,qv3b).

t(qv2a,def-indic,qv4).

t(qv2b,tensedef-past,qv3a).

t(qv2b,tenseindef-past,qv3b).

t(qv2b,indicagr,qv4).

t(qv3a,def-indic,qv4).

t(qv3b,indic,qv4).

allomorph(yürü, verb).

allomorph(gör, verb).

allomorph(et, verb).

allomorph(götür, verb).

allomorph(sor, verb).

allomorph(ma, ng).

allomorph(me, ng).

allomorph(mü, ng).

allomorph(mu, ng).

allomorph(acak, aspectfuture).

allomorph(ecek, aspectfuture).

allomorph(yacak, aspectfuture).

allomorph(yecek, aspectfuture).

allomorph(dı, aspectdef-past).

allomorph(di, aspectdef-past).

allomorph(du, aspectdef-past).

allomorph(dü, aspectdef-past).

allomorph(tı, aspectdef-past).

allomorph(ti, aspectdef-past).

allomorph(tu, aspectdef-past).

allomorph(tü, aspectdef-past).

allomorph(mış, aspectindef-past).

allomorph(miş, aspectindef-past).

allomorph(muş, aspectindef-past).

allomorph(müş, aspectindef-past).

allomorph(yor, aspectprog).

allomorph(uyor, aspectprog).

allomorph(üyor, aspectprog).

allomorph(ıyor, aspectprog).

allomorph(iyor, aspectprog).

allomorph(dı, tensedef-past).

allomorph(di, tensedef-past).

allomorph(du, tensedef-past).

allomorph(dü, tensedef-past).

allomorph(tı, tensedef-past).

allomorph(ti, tensedef-past).

allomorph(tu, tensedef-past).

allomorph(tü, tensedef-past).

allomorph(mış, tenseindef-past).

allomorph(miş, tenseindef-past).

allomorph(muş, tenseindef-past).

allomorph(müş, tenseindef-past).

allomorph(ım, indic).

allomorph(ın, indic).

allomorph(im, indic).

allomorph(in, indic).

allomorph(m, def-indic).

allomorph(n, def-indic).

%%% PARSER

parse(String, Morphemes):-

initial(State),

parse(String, Morphemes, State).


parse("", [], State):-

final(State).

parse(String, [Morpheme|Morphemes], CurrentState):-

concat(Prefix, Suffix, String),

allomorph(Prefix, Morpheme),
t(CurrentState, Morpheme, NextState),
parse(Suffix, Morphemes, NextState).




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Search

Program

```
58 allomorph(yor, aspectprog).
59 allomorph(yor, aspectprog).
60 allomorph(yor, aspectprog).
61 allomorph(yor, aspectprog).
62 allomorph(yor, aspectprog).
63
64 allomorph(di, tensedef-past).
65 allomorph(di, tensedef-past).
66 allomorph(du, tensedef-past).
67 allomorph(du, tensedef-past).
68 allomorph(du, tensedef-past).
69 allomorph(ti, tensedef-past).
70 allomorph(ti, tensedef-past).
71 allomorph(tu, tensedef-past).
72 allomorph(tu, tensedef-past).
73
74 allomorph(mis, tenseindf-past).
75 allomorph(mis, tenseindf-past).
76 allomorph(mis, tenseindf-past).
77
78 allomorph(in, indic).
79 allomorph(in, indic).
80 allomorph(in, indic).
81 allomorph(in, indic).
82
83 allomorph(n, def-indic).
84 allomorph(n, def-indic).
85
86 XXX PARSE
87 parse(String, Morphemes):-
88   initial(State),
89   parse(String, Morphemes, State).
90
91 parse('', [], State):-
92   final(State).
93
94 parse(String, [Morpheme|Morphemes], CurrentState):-
95   concat(Prefix, Suffix, String),
96   allomorph(Prefix, Morpheme),
97   t(CurrentState, Morpheme, NextState),
98   parse(Suffix, Morphemes, NextState).
99
```



parse(yünyörmüş,L).


L = [verb, aspectprog, tenseindf-past]

Next 10 100 1,000 Stop

7. parse(yünyörmüş,L).

Examples History Solutions

table results Run



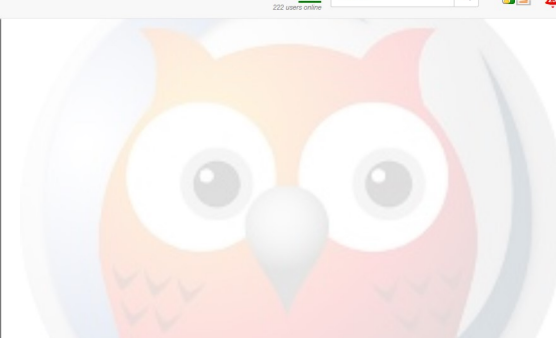
File Edit Examples Help

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Search

Program

```
58 allomorph(yor, aspectprog).
59 allomorph(yor, aspectprog).
60 allomorph(yor, aspectprog).
61 allomorph(yor, aspectprog).
62 allomorph(yor, aspectprog).
63
64 allomorph(di, tensedef-past).
65 allomorph(di, tensedef-past).
66 allomorph(du, tensedef-past).
67 allomorph(du, tensedef-past).
68 allomorph(du, tensedef-past).
69 allomorph(ti, tensedef-past).
70 allomorph(ti, tensedef-past).
71 allomorph(tu, tensedef-past).
72 allomorph(tu, tensedef-past).
73
74 allomorph(mis, tenseindf-past).
75 allomorph(mis, tenseindf-past).
76 allomorph(mis, tenseindf-past).
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78 allomorph(in, indic).
79 allomorph(in, indic).
80 allomorph(in, indic).
81 allomorph(in, indic).
82
83 allomorph(n, def-indic).
84 allomorph(n, def-indic).
85
86 XXX PARSE
87 parse(String, Morphemes):-
88   initial(State),
89   parse(String, Morphemes, State).
90
91 parse('', [], State):-
92   final(State).
93
94 parse(String, [Morpheme|Morphemes], CurrentState):-
95   concat(Prefix, Suffix, String),
96   allomorph(Prefix, Morpheme),
97   t(CurrentState, Morpheme, NextState),
98   parse(Suffix, Morphemes, NextState).
99
```



parse(götürmüyordum,L).

L = [verb, np, aspectprog, tenseindf-past, def-indic]

Next 10 100 1,000 Stop

7. parse(götürmüyordum,L).

Examples History Solutions

table results Run

SWISH File Edit Examples Help 221 users online Search

Program X

```
58 allomorph(yor, aspectprog).
59 allomorph(yor, aspectprog).
60 allomorph(yor, aspectprog).
61 allomorph(yor, aspectprog).
62 allomorph(yor, aspectprog).
63
64 allomorph(di, tensedef-past).
65 allomorph(di, tensedef-past).
66 allomorph(di, tensedef-past).
67 allomorph(di, tensedef-past).
68 allomorph(ti, tensedef-past).
69 allomorph(ti, tensedef-past).
70 allomorph(tu, tensedef-past).
71 allomorph(tu, tensedef-past).
72
73 allomorph(mis, tenseindf-past).
74 allomorph(mis, tenseindf-past).
75 allomorph(mus, tenseindf-past).
76 allomorph(mus, tenseindf-past).
77
78 allomorph(in, indic).
79 allomorph(in, indic).
80 allomorph(in, indic).
81 allomorph(in, indic).
82
83 allomorph(n, def-indic).
84 allomorph(n, def-indic).
85
86 XXX PARSE
87 parse(String, Morphemes):-
88   initial(State),
89   parse(String, Morphemes, State).
90
91 parse('', [], State):-
92   final(State).
93
94 parse(String, [Morpheme|Morphemes], CurrentState):-
95   concat(Prefix, Suffix, String),
96   allomorph(Prefix, Morpheme),
97   t(CurrentState, Morpheme, NextState),
98   parse(Suffix, Morphemes, NextState).
99
```

parse(etmij.L)

L = [verb, aspectindf-past]

Next 10 100 1,000 Stop

? parse(etmij,L).

Examples History Solutions table results Run

SWISH File Edit Examples Help 225 users online Search

Program X

```
58 allomorph(yor, aspectprog).
59 allomorph(yor, aspectprog).
60 allomorph(yor, aspectprog).
61 allomorph(yor, aspectprog).
62 allomorph(yor, aspectprog).
63
64 allomorph(di, tensedef-past).
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66 allomorph(di, tensedef-past).
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74 allomorph(mis, tenseindf-past).
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76 allomorph(mus, tenseindf-past).
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81 allomorph(in, indic).
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84 allomorph(n, def-indic).
85
86 XXX PARSE
87 parse(String, Morphemes):-
88   initial(State),
89   parse(String, Morphemes, State).
90
91 parse('', [], State):-
92   final(State).
93
94 parse(String, [Morpheme|Morphemes], CurrentState):-
95   concat(Prefix, Suffix, String),
96   allomorph(Prefix, Morpheme),
97   t(CurrentState, Morpheme, NextState),
98   parse(Suffix, Morphemes, NextState).
99
```

parse(sormuq.L)

L = [verb, aspectindf-past]

Next 10 100 1,000 Stop

? parse(sormuq,L).

Examples History Solutions table results Run

SWISH File Edit Examples Help 224 users online Search

Program X

```
58 allomorph(yor, aspectprog).
59 allomorph(yor, aspectprog).
60 allomorph(yor, aspectprog).
61 allomorph(yor, aspectprog).
62 allomorph(yor, aspectprog).
63
64 allomorph(di, tensedef-past).
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84 allomorph(n, def-indic).
85
86 XXX PARSE
87 parse(String, Morphemes):-
88   initial(State),
89   parse(String, Morphemes, State).
90
91 parse('', [], State):-
92   final(State).
93
94 parse(String, [Morpheme|Morphemes], CurrentState):-
95   concat(Prefix, Suffix, String),
96   allomorph(Prefix, Morpheme),
97   t(CurrentState, Morpheme, NextState),
98   parse(Suffix, Morphemes, NextState).
99
```

parse(gormuq.L)

L = [verb, aspectindf-past]

Next 10 100 1,000 Stop

? parse(gormuq,L).


Examples History Solutions table results Run

SWISH

File Edit Examples Help

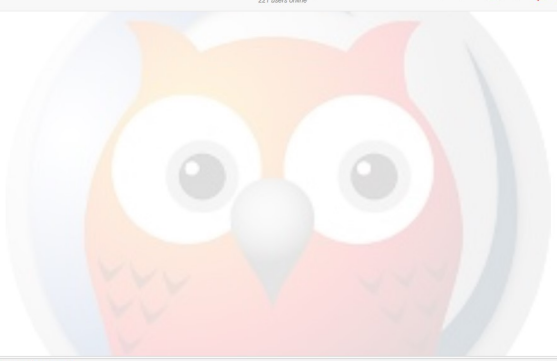
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Search



Program

```
58 allomorph(yor, aspectprog).
59 allomorph(yor, aspectprog).
60 allomorph(yor, aspectprog).
61 allomorph(yor, aspectprog).
62 allomorph(yor, aspectprog).
63
64 allomorph(di, tensedef-past).
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87 parse(String, Morphemes):-
88   initial(State),
89   parse(String, Morphemes, State).
90
91 parse('', [], State):-
92   final(State).
93
94 parse(String, [Morpheme|Morphemes], CurrentState):-
95   concat(Prefix, Suffix, String),
96   allomorph(Prefix, Morpheme),
97   t(CurrentState, Morpheme, NextState),
98   parse(Suffix, Morphemes, NextState).
99
```



parse(susmuq.L)

false

? parse(susmuq.L).

Examples History Solutions

☐ table results

Run