

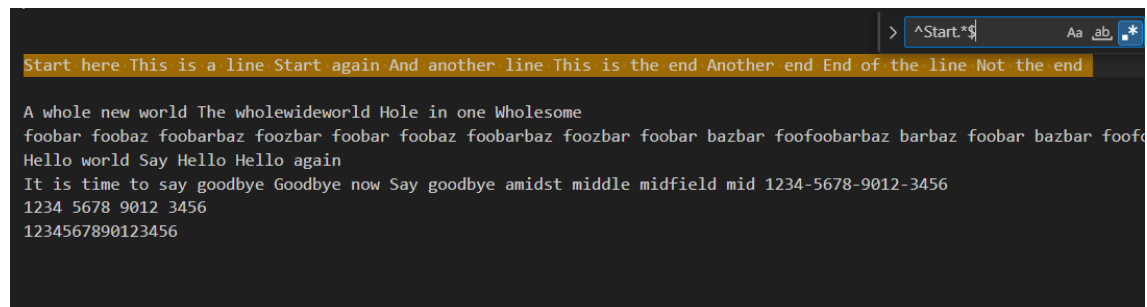
Teoría de autómatas y compiladores:

Apellidos y Nombres: Ttito Ccaccasto Giovanni

cod:212144

1. Desarrollar una expresión regular para encontrar todas las líneas que comienzan con la palabra "Start".

`^Start.*$`

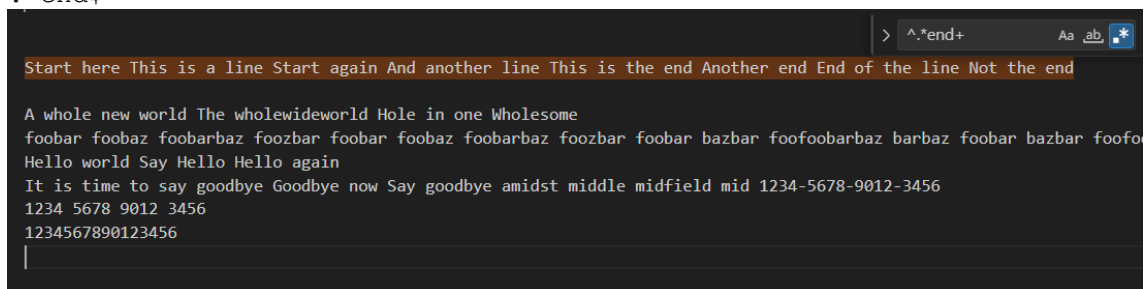


```
Start here This is a line Start again And another line This is the end Another end End of the line Not the end

A whole new world The wholewideworld Hole in one Wholesome
foobar foobaz foobarbaz foozbar foobar foobaz foobarbaz foozbar foobar bazbar foofoobarbaz barbaz foobar bazbar foofo
Hello world Say Hello Hello again
It is time to say goodbye Goodbye now Say goodbye amidst middle midfield mid 1234-5678-9012-3456
1234 5678 9012 3456
1234567890123456
```

- 2 Realizar una expresión regular para encontrar todas las líneas que terminan con la palabra "end".

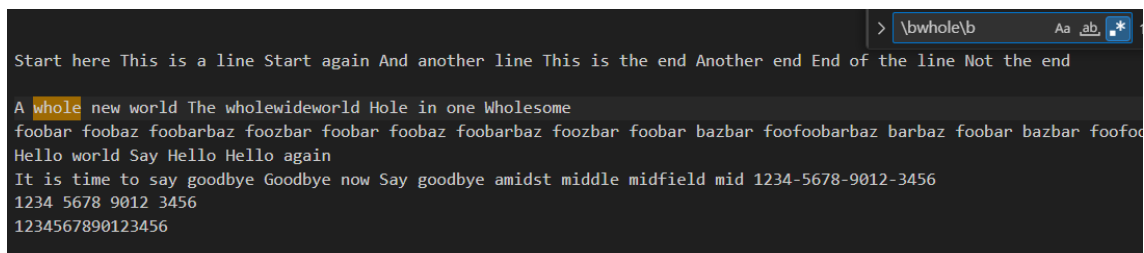
`.*end$`



```
Start here This is a line Start again And another line This is the end Another end End of the line Not the end

A whole new world The wholewideworld Hole in one Wholesome
foobar foobaz foobarbaz foozbar foobar foobaz foobarbaz foozbar foobar bazbar foofoobarbaz barbaz foobar bazbar foofo
Hello world Say Hello Hello again
It is time to say goodbye Goodbye now Say goodbye amidst middle midfield mid 1234-5678-9012-3456
1234 5678 9012 3456
1234567890123456
```

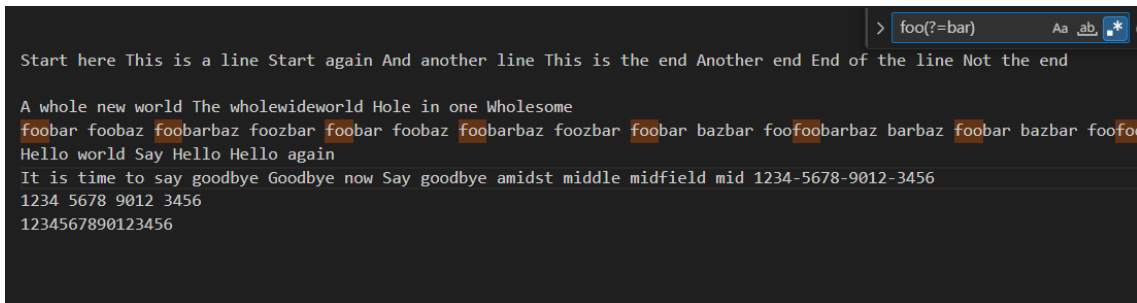
- 3 Realizar una expresión regular para encontrar la palabra " whole" solo cuando es una palabra completa.



```
Start here This is a line Start again And another line This is the end Another end End of the line Not the end

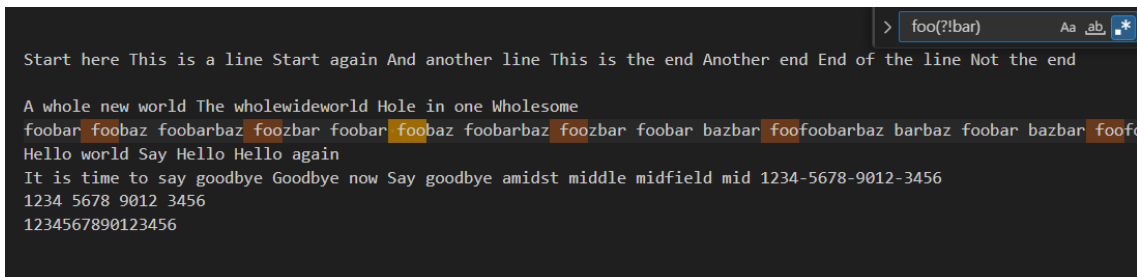
A whole new world The wholewideworld Hole in one Wholesome
foobar foobaz foobarbaz foozbar foobar foobaz foobarbaz foozbar foobar bazbar foofoobarbaz barbaz foobar bazbar foofo
Hello world Say Hello Hello again
It is time to say goodbye Goodbye now Say goodbye amidst middle midfield mid 1234-5678-9012-3456
1234 5678 9012 3456
1234567890123456
```

4Realizar una expresión regular para encontrar la palabra "foo" solo si es seguida por "bar".



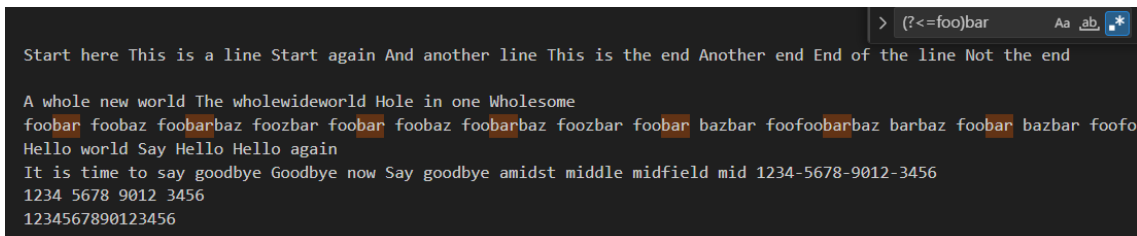
5 Realizar una expresión regular para encontrar la palabra "foo" solo si no es seguida por "bar".

Foo(?=bar)



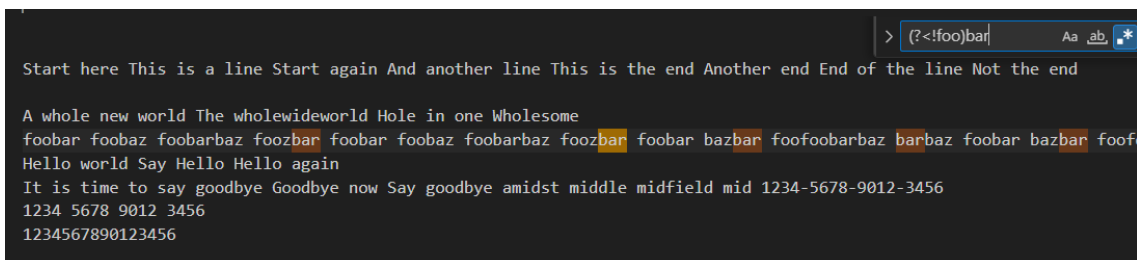
6 Realizar una expresión regular para encontrar la palabra "bar" solo si es precedida por "foo".

(?<=foo)bar



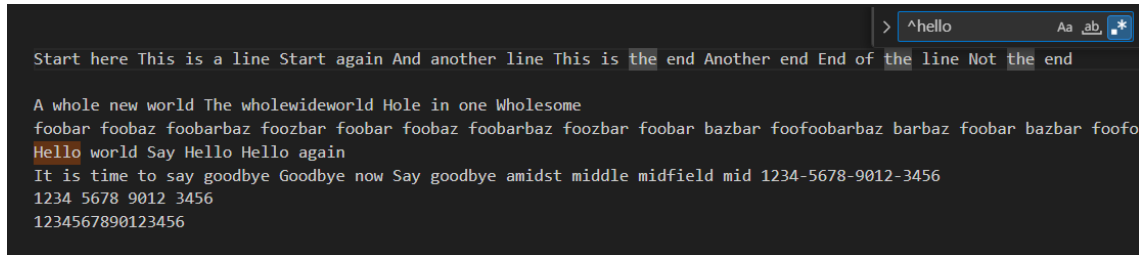
7 Realizar una expresión regular para encontrar la palabra "bar" solo si no es precedida por "foo".

(?<!foo)bar



8 Realizar una expresión regular para encontrar la palabra "Hello" solo si está al inicio del texto completo.

`^hello`

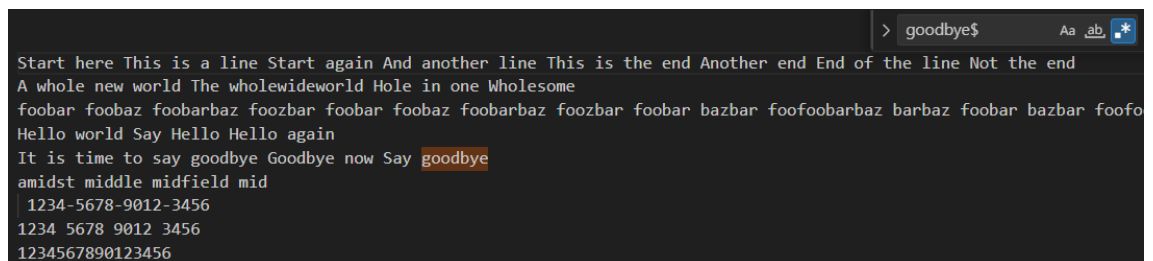


A screenshot of a text editor with a dark theme. The search bar at the top right contains the regex `> ^hello`. The text area contains several lines of text. The word "Hello" in the line "Hello world Say Hello Hello again" is highlighted in orange, indicating a successful match.

```
Start here This is a line Start again And another line This is the end Another end End of the line Not the end
A whole new world The wholewideworld Hole in one Wholesome
foobar foobaz foobarbaz foobar foobaz foobarbaz foobar bazbar foofoobarbaz barbaz foobar bazbar foofo
Hello world Say Hello Hello again
It is time to say goodbye Goodbye now Say goodbye amidst middle midfield mid 1234-5678-9012-3456
1234 5678 9012 3456
1234567890123456
```

9 Realizar una expresión regular para encontrar la palabra "goodbye" solo si está al final del texto completo.

`Goodbye$`

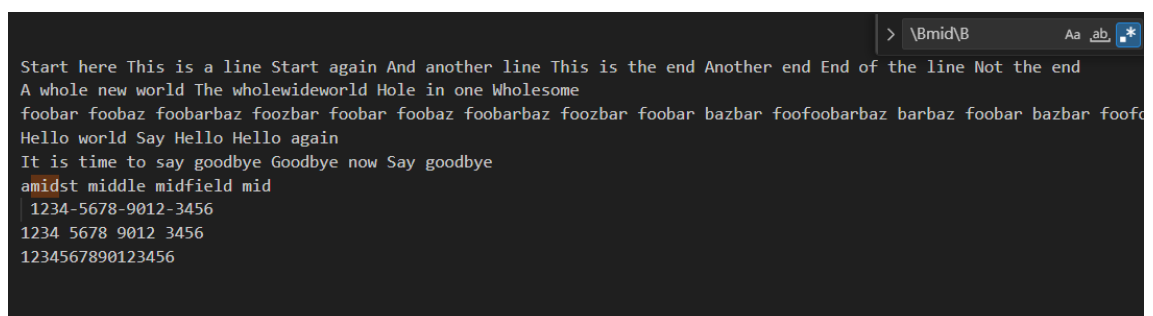


A screenshot of a text editor with a dark theme. The search bar at the top right contains the regex `> goodbye$`. The text area contains the same text as the previous screenshot. The word "goodbye" in the line "amidst middle midfield mid" is highlighted in orange, indicating a successful match.

```
Start here This is a line Start again And another line This is the end Another end End of the line Not the end
A whole new world The wholewideworld Hole in one Wholesome
foobar foobaz foobarbaz foobar foobaz foobarbaz foobar bazbar foofoobarbaz barbaz foobar bazbar foofo
Hello world Say Hello Hello again
It is time to say goodbye Goodbye now Say goodbye amidst middle midfield mid
amidst middle midfield mid
1234-5678-9012-3456
1234 5678 9012 3456
1234567890123456
```

10 Realizar una expresión regular para encontrar la secuencia "mid" solo si no está en un borde de palabra

`\Bmid\B`



A screenshot of a text editor with a dark theme. The search bar at the top right contains the regex `> \Bmid\B`. The text area contains the same text as the previous screenshots. The word "mid" in the line "amidst middle midfield mid" is highlighted in orange, indicating a successful match.

```
Start here This is a line Start again And another line This is the end Another end End of the line Not the end
A whole new world The wholewideworld Hole in one Wholesome
foobar foobaz foobarbaz foobar foobaz foobarbaz foobar bazbar foofoobarbaz barbaz foobar bazbar foofo
Hello world Say Hello Hello again
It is time to say goodbye Goodbye now Say goodbye amidst middle midfield mid
amidst middle midfield mid
1234-5678-9012-3456
1234 5678 9012 3456
1234567890123456
```

1. Realizar una expresión regular para validar números de tarjeta de crédito que cumplan con las siguientes condiciones:

Los números deben estar agrupados en bloques de 4 dígitos

`[\d]{4}[-|][\d]{4}[-|][\d]{4}[-|][\d]{4}`

```
Start here This is a line Start again And another line This is the end Another end End of the line Not the end
A whole new world The wholewideworld Hole in one Wholesome
foobar foobaz foobarbaz foozbar foobar foobaz foobarbaz foozbar foobar bazbar foofoobarbaz barbaz foobar bazbar foofo
Hello world Say Hello Hello again
It is time to say goodbye Goodbye now Say goodbye
amidst middle midfield mid
1234-5678-9012-3456
1234 5678 9012 3456
1234567890123456
```

2. 2 Realizar una expresión regular para encontrar y extraer texto que esté entre comillas dobles, pero que no esté precedido por una barra invertida (\).

```
Start here This is a line Start again And another line This is the end Another end End of the line Not the end
A whole new world The wholewideworld Hole in one Wholesome
foobar foobaz foobarbaz foozbar foobar foobaz foobarbaz foozbar foobar bazbar foofoobarbaz barbaz foobar bazbar foofo
Hello world Say Hello Hello again
It is time to say goodbye Goodbye now Say goodbye
amidst middle midfield mid
1234-5678-9012-3456
1234 5678 9012 3456
1234567890123456
21/04/2024

"sdfsdfsdfsdf "
"sdfsdfsdfsdf"
```

3 Realizar una expresión regular para encontrar fechas en formato

DD/MM/YYYY donde el día esté entre 01 y 31, el mes entre 01 y 12 y el año entre 1900 y 2099.

```
> |[0-2]*/((19|20)\d{2})\b Aa .ab *
Start here This is a line Start again And another line This is the end Another end End of the line Not the end

A whole new world The wholewideworld Hole in one Wholesome
foobar foobaz foobarbaz foozbar foobar foobaz foobarbaz foozbar foobar bazbar foofoobarbaz barbaz foobar bazbar foofo
Hello world Say Hello Hello again
It is time to say goodbye Goodbye now Say goodbye
amidst middle midfield mid
1234-5678-9012-3456
1234 5678 9012 3456
1234567890123456
21/04/2024
```