



VILNIUSCODINGSCHOOL

Patikrinimo sąlyga if (conditional logic)

Apie if sąlygą

- If sąlyga skirta norint ką nors patikrinti ar palyginti. Pavyzdžiui:
 - Ar skaičiai lygūs?
 - Ar vartotojo amžius yra didesnis už 18?
 - Ar vartotojas prisijungęs?
 - Ar vartotojo rolė yra tinkama norint pasiekti turinį?
 - Ar failas egzistuoja?
 - ...
- Kai sąlyga teisinga (užduotas klausimas yra tiesa (`true`)), tuomet yra vykdomas atitinkamas kodas.

Palyginimo operatoriai (comparison operators)

Operator	Description	Comparing	Returns
==	equal to	x == 8	false
		x == 5	true
		x == "5"	true
===	equal value and equal type	x === 5	true
		x === "5"	false
!=	not equal	x != 8	true
!==	not equal value or not equal type	x !== 5	false
		x !== "5"	true
		x !== 8	true
>	greater than	x > 8	false
<	less than	x < 8	true
>=	greater than or equal to	x >= 8	false
<=	less than or equal to	x <= 8	true

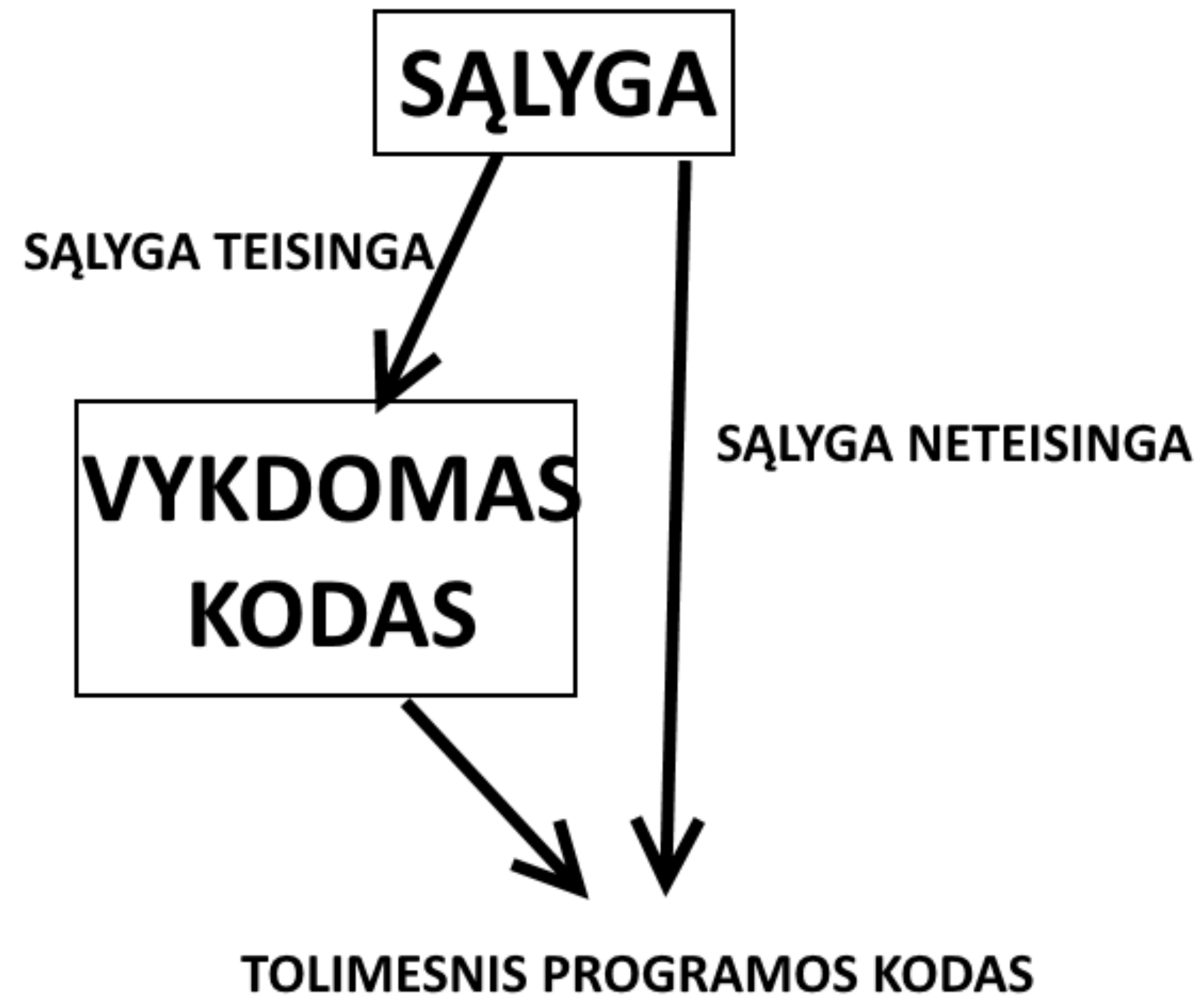
if sąlygos dalys

- If sąlyga gali susidėti iš kelių dalių:
 - if - būtinoji dalis.
 - else if - jeigu reikia tikrinti daugiau sąlygų, galima rašyti tiek else if dalių kiek tik reikia.
 - else - jei reikia galima rašyti, rašosi pačiame gale, vieną kartą.

Patikrinimo sąlyga if

if dalis

if sąlygos veikimas



if sąlygos sintaksė

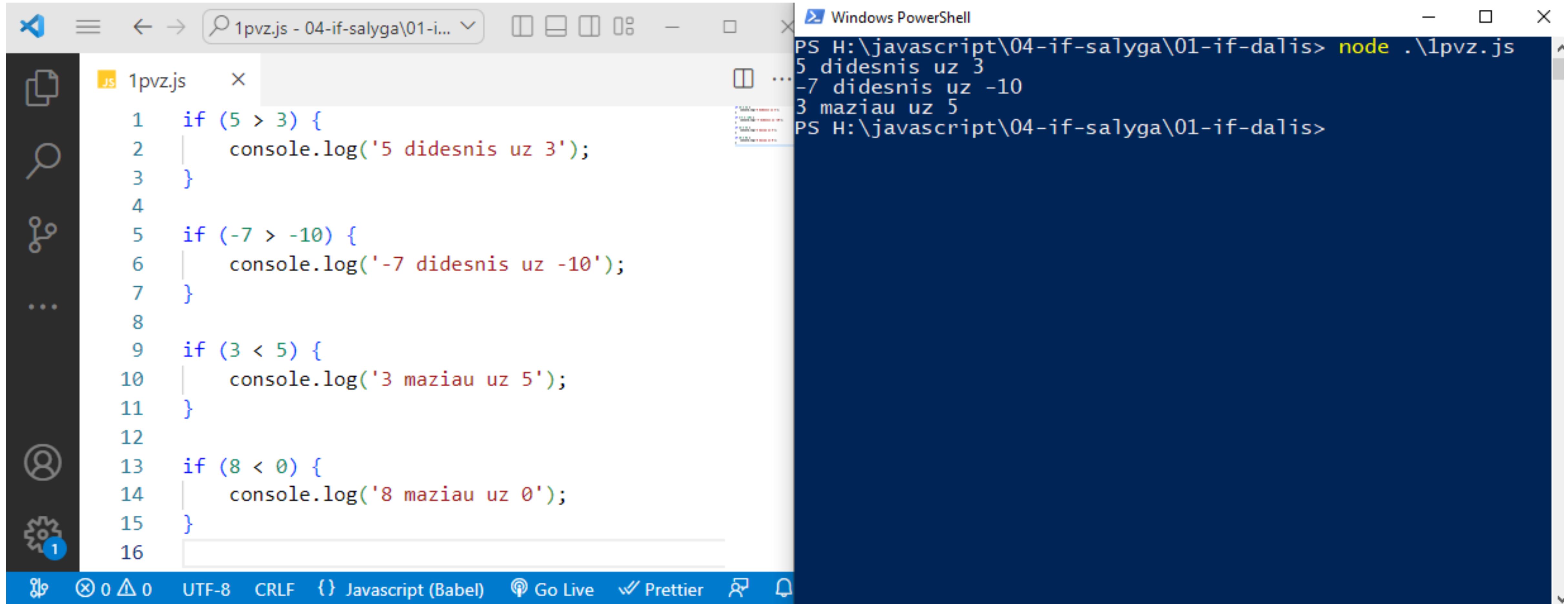
```
if (sąlyga)

{

    // kodas, jei sąlyga yra teisinga (atsakymas į klausimą
yra true)

}
```

Pavyzdys 1

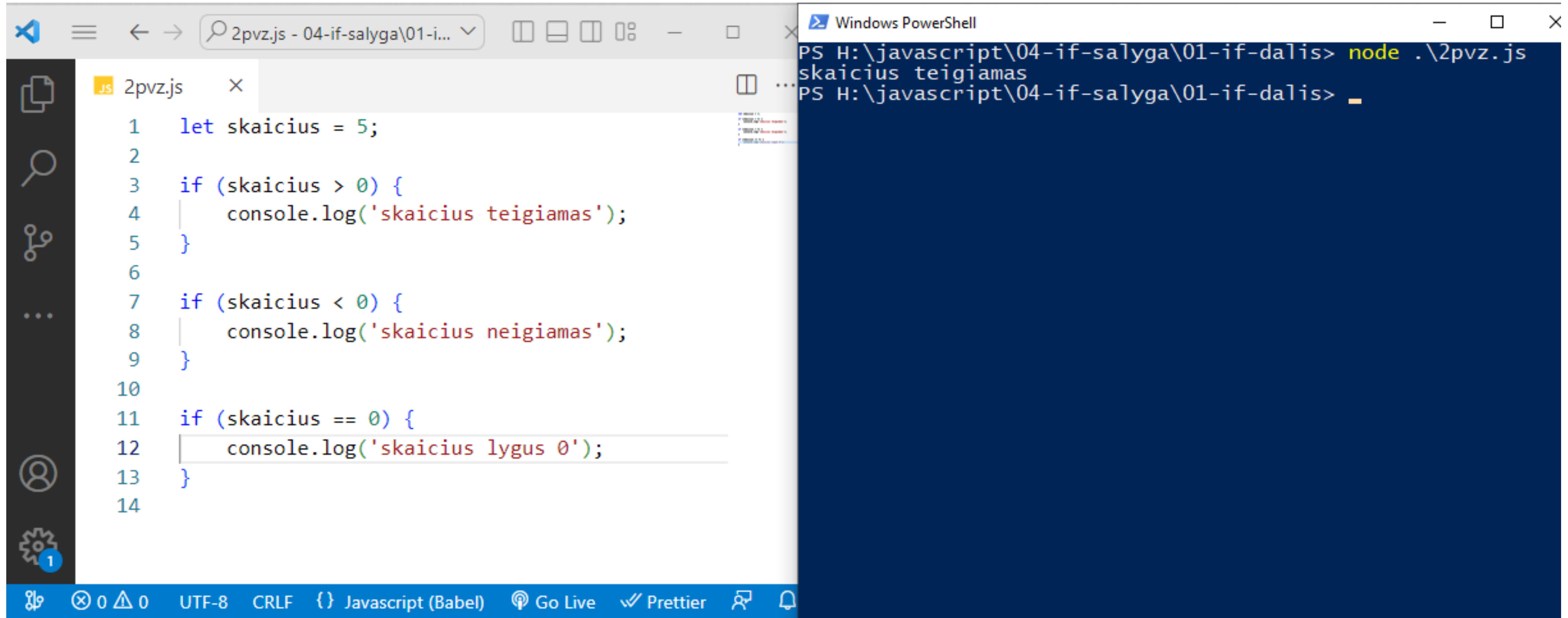


The image shows a development environment with two windows. The left window is Visual Studio Code, displaying a JavaScript file named `1pvz.js`. The code contains four `if` statements that log messages to the console based on numerical comparisons. The right window is a Windows PowerShell terminal, showing the command `node .\1pvz.js` being executed, which results in the same four log messages being printed to the terminal output.

```
1  if (5 > 3) {  
2      console.log('5 didesnis uz 3');  
3  }  
4  
5  if (-7 > -10) {  
6      console.log('-7 didesnis uz -10');  
7  }  
8  
9  if (3 < 5) {  
10     console.log('3 maziau uz 5');  
11 }  
12  
13 if (8 < 0) {  
14     console.log('8 maziau uz 0');  
15 }  
16
```

```
PS H:\javascript\04-if-salyga\01-if-dalis> node .\1pvz.js  
5 didesnis uz 3  
-7 didesnis uz -10  
3 maziau uz 5  
PS H:\javascript\04-if-salyga\01-if-dalis>
```


Pavyzdys 2

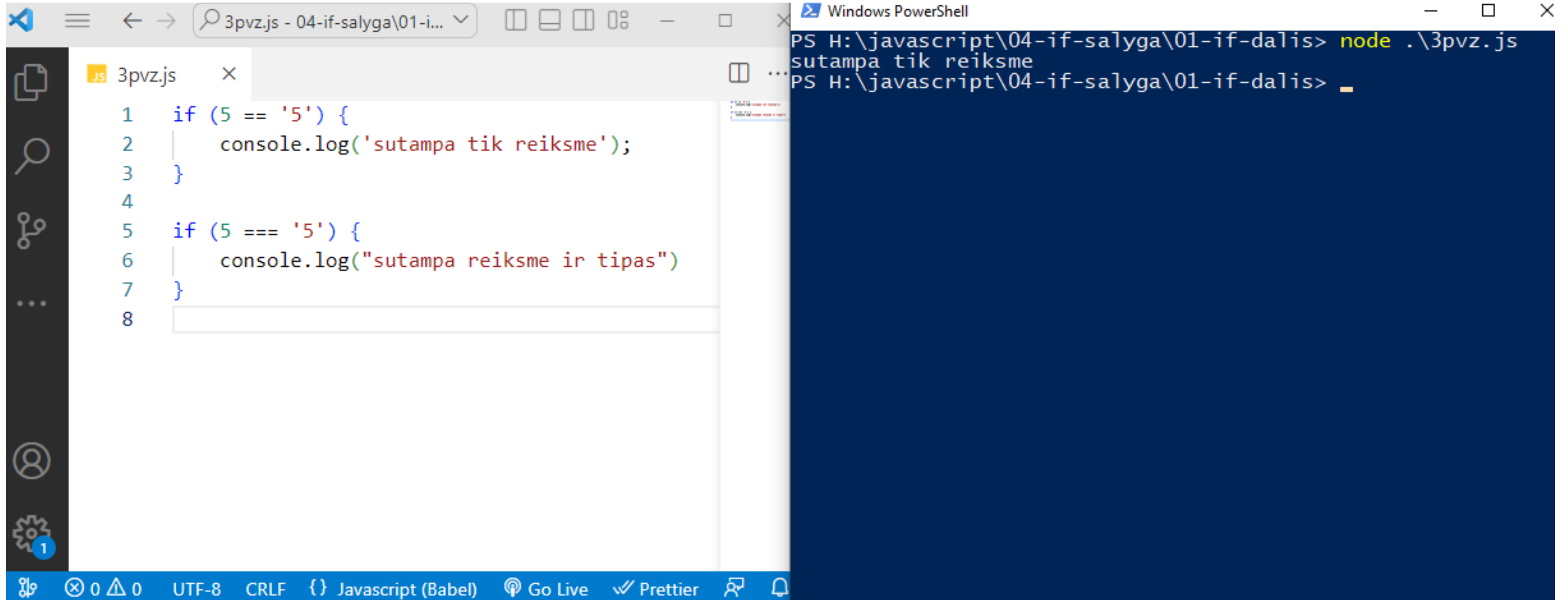


The image shows a screenshot of a development environment. On the left is the Visual Studio Code editor with a file named `2pvz.js` open. The code in the editor is as follows:

```
1 let skaicius = 5;
2
3 if (skaicius > 0) {
4     console.log('skaicius teigiamas');
5 }
6
7 if (skaicius < 0) {
8     console.log('skaicius neigiamas');
9 }
10
11 if (skaicius == 0) {
12     console.log('skaicius lygus 0');
13 }
14
```

On the right is a Windows PowerShell terminal window. It shows the command `node .\2pvz.js` being executed, which results in the output `skaicius teigiamas`. The terminal prompt is `PS H:\javascript\04-if-salyga\01-if-dalis>`.

Pavyzdys 3

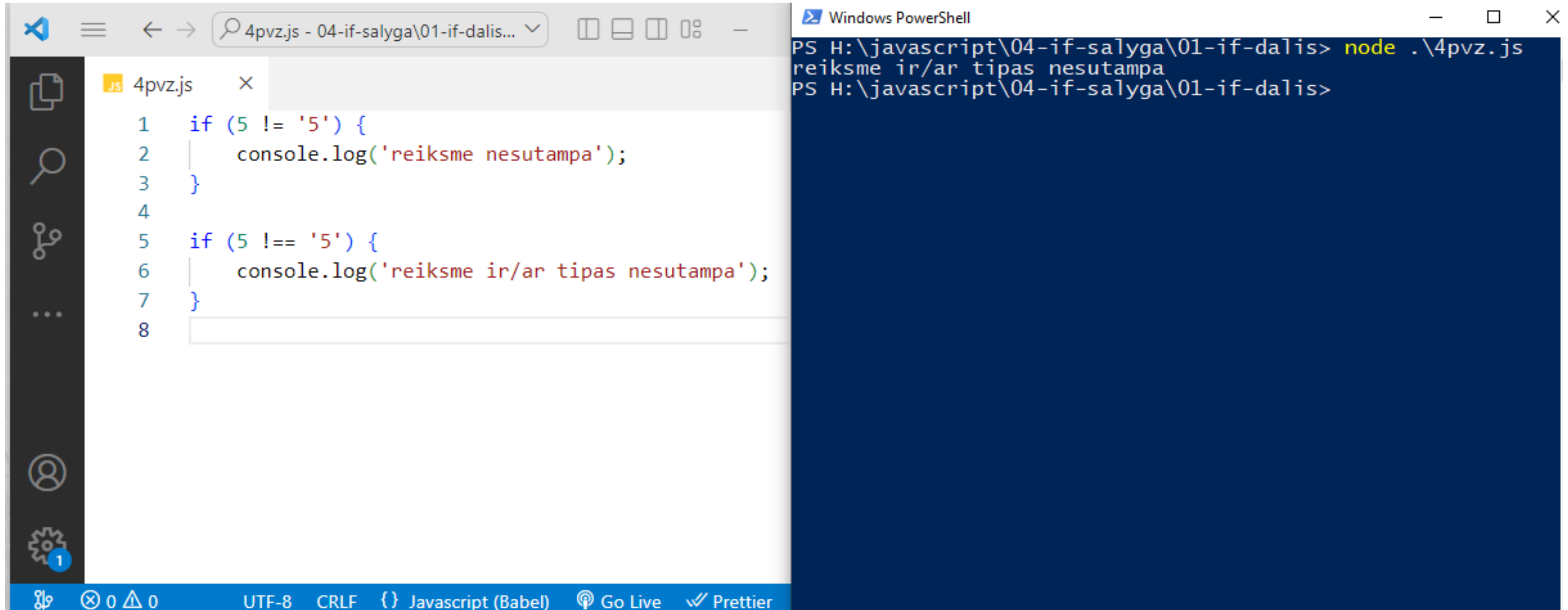


The image shows a side-by-side comparison of a code editor and a terminal. On the left, the Visual Studio Code editor displays a file named `3pvz.js` with the following JavaScript code:

```
1  if (5 == '5') {  
2    console.log('sutampa tik reiksme');  
3  }  
4  
5  if (5 === '5') {  
6    console.log("sutampa reiksme ir tipas")  
7  }  
8
```

On the right, a Windows PowerShell terminal window shows the execution of the script. The prompt is `PS H:\javascript\04-if-salyga\01-if-dalis>`. The command `node .\3pvz.js` has been entered, and the output `sutampa tik reiksme` is displayed on the line following the command.

Pavyzdys 4

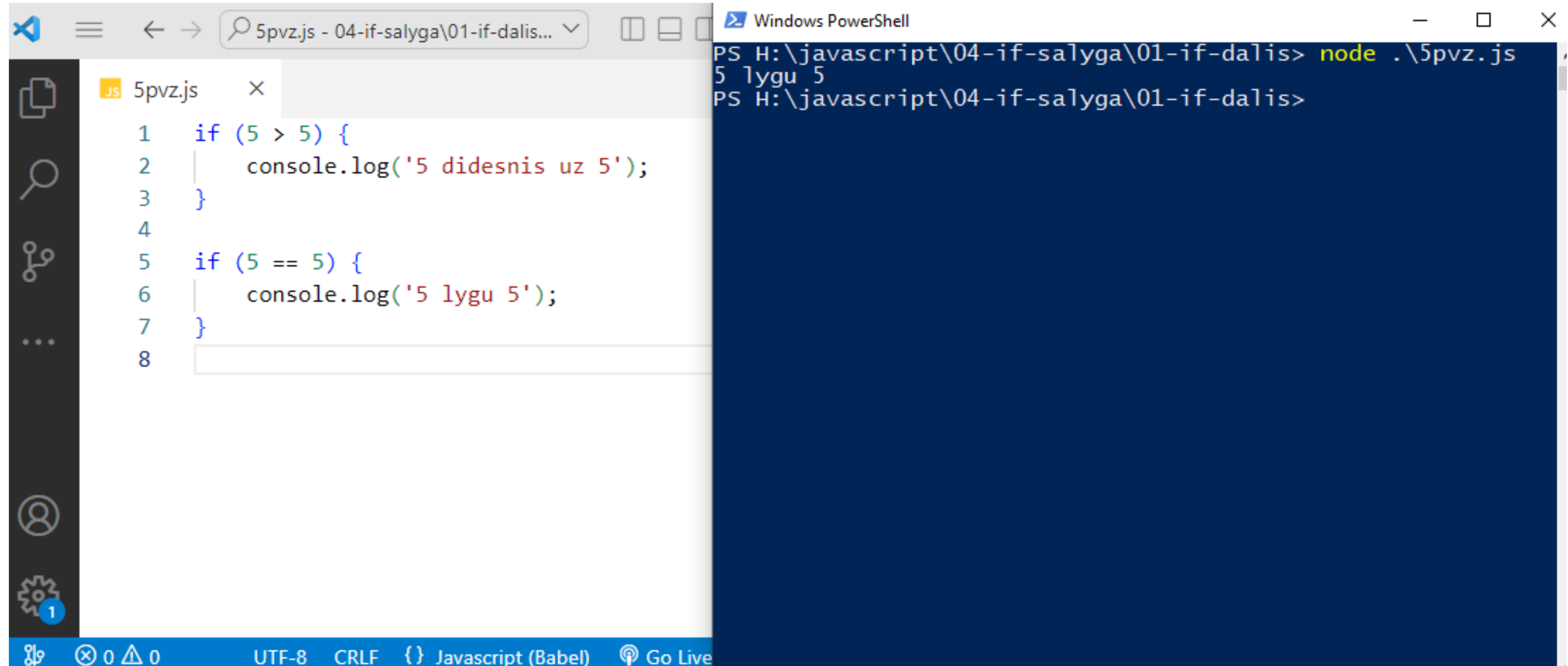


The image shows a side-by-side comparison of a code editor and a terminal. On the left is the Visual Studio Code editor with a file named '4pvz.js' open. The code contains two conditional statements. The first uses the strict inequality operator '!=' and the second uses the loose inequality operator '!=='. Both statements log a message to the console when the condition is true. On the right is a Windows PowerShell terminal window. It shows the command 'node .\4pvz.js' being executed, which results in the output 'reiksme ir/ar tipas nesutampa' (value and/or type does not match) being printed to the console.

```
4pvz.js
1  if (5 != '5') {
2      console.log('reiksme nesutampa');
3  }
4
5  if (5 !== '5') {
6      console.log('reiksme ir/ar tipas nesutampa');
7  }
8

Windows PowerShell
PS H:\javascript\04-if-salyga\01-if-dalis> node .\4pvz.js
reiksme ir/ar tipas nesutampa
PS H:\javascript\04-if-salyga\01-if-dalis>
```

Pavyzdys 5

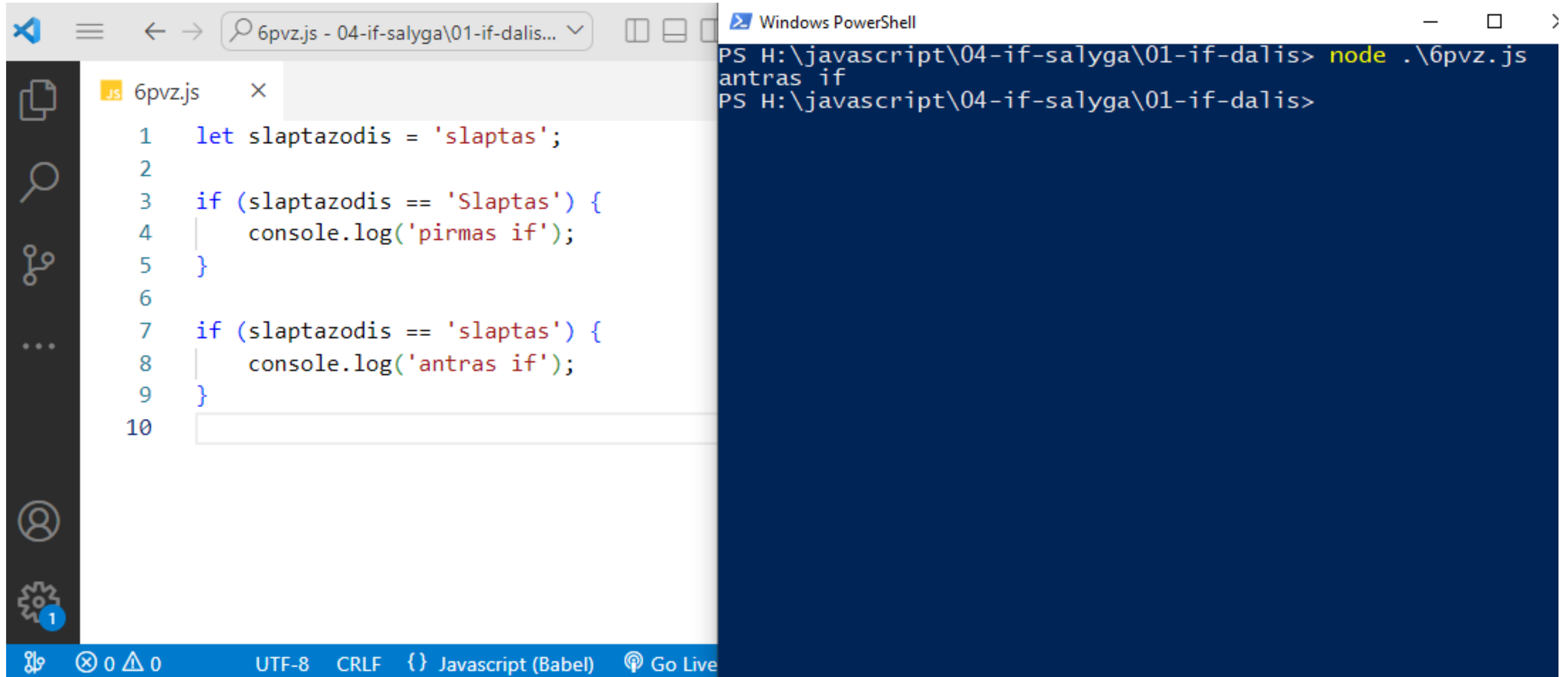


The image shows a side-by-side comparison of a code editor and a command prompt. On the left, the Visual Studio Code editor displays a file named `5pvz.js` with the following JavaScript code:

```
1  if (5 > 5) {  
2    console.log('5 didesnis uz 5');  
3  }  
4  
5  if (5 == 5) {  
6    console.log('5 lygu 5');  
7  }  
8
```

On the right, a Windows PowerShell window shows the execution of the script. The prompt is `PS H:\javascript\04-if-salyga\01-if-dalis>`. The command `node .\5pvz.js` has been entered, and the output is `5 lygu 5`. The prompt then returns to `PS H:\javascript\04-if-salyga\01-if-dalis>`.

Pavyzdys 6

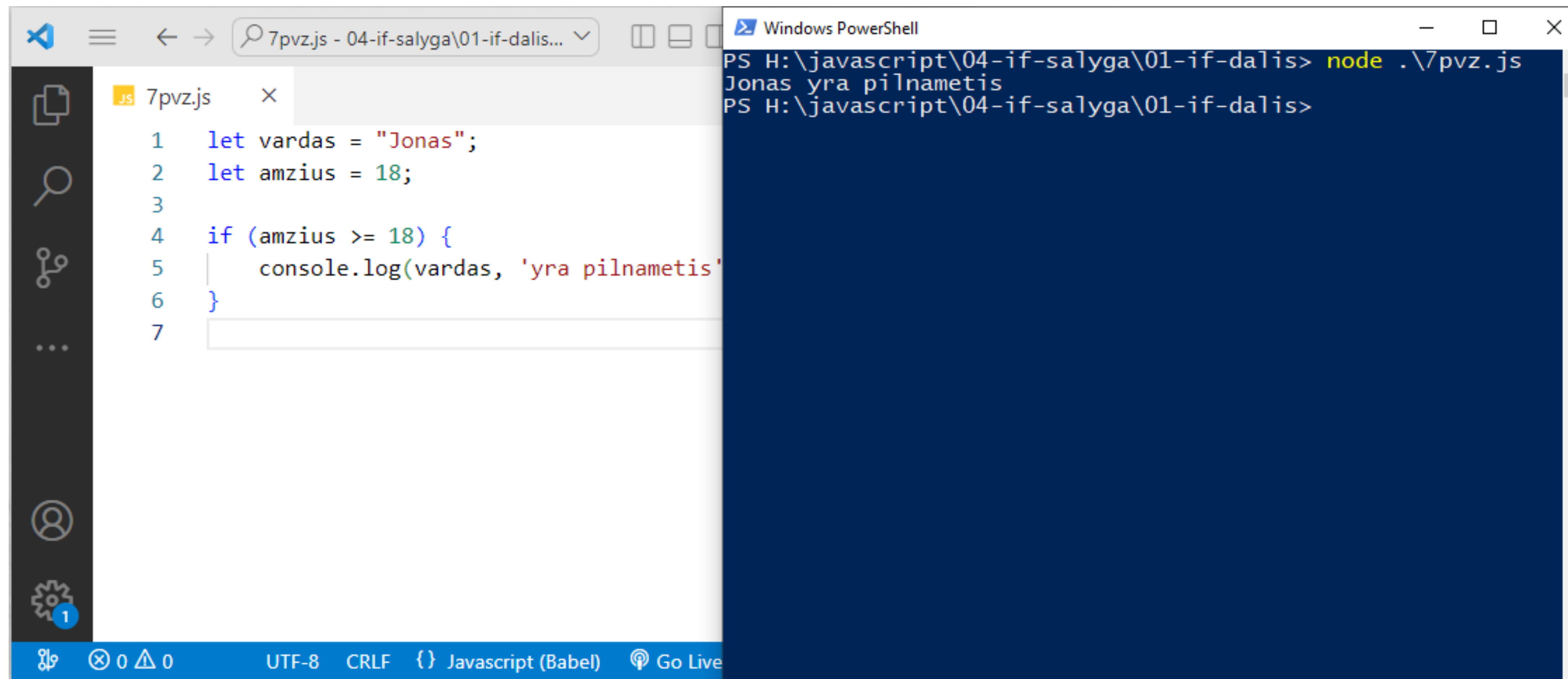


The image shows a side-by-side comparison of a code editor and a terminal. On the left, the Visual Studio Code editor displays a file named `6pvz.js` with the following JavaScript code:

```
1 let slaptazodis = 'slaptas';
2
3 if (slaptazodis == 'Slaptas') {
4   console.log('pirmas if');
5 }
6
7 if (slaptazodis == 'slaptas') {
8   console.log('antras if');
9 }
10
```

On the right, a Windows PowerShell terminal window shows the execution of the script. The prompt is `PS H:\javascript\04-if-salyga\01-if-dalis>`. The command `node .\6pvz.js` has been entered, and the output `antras if` is displayed on the line below. The prompt is then shown again on the next line.

Pavyzdys 7

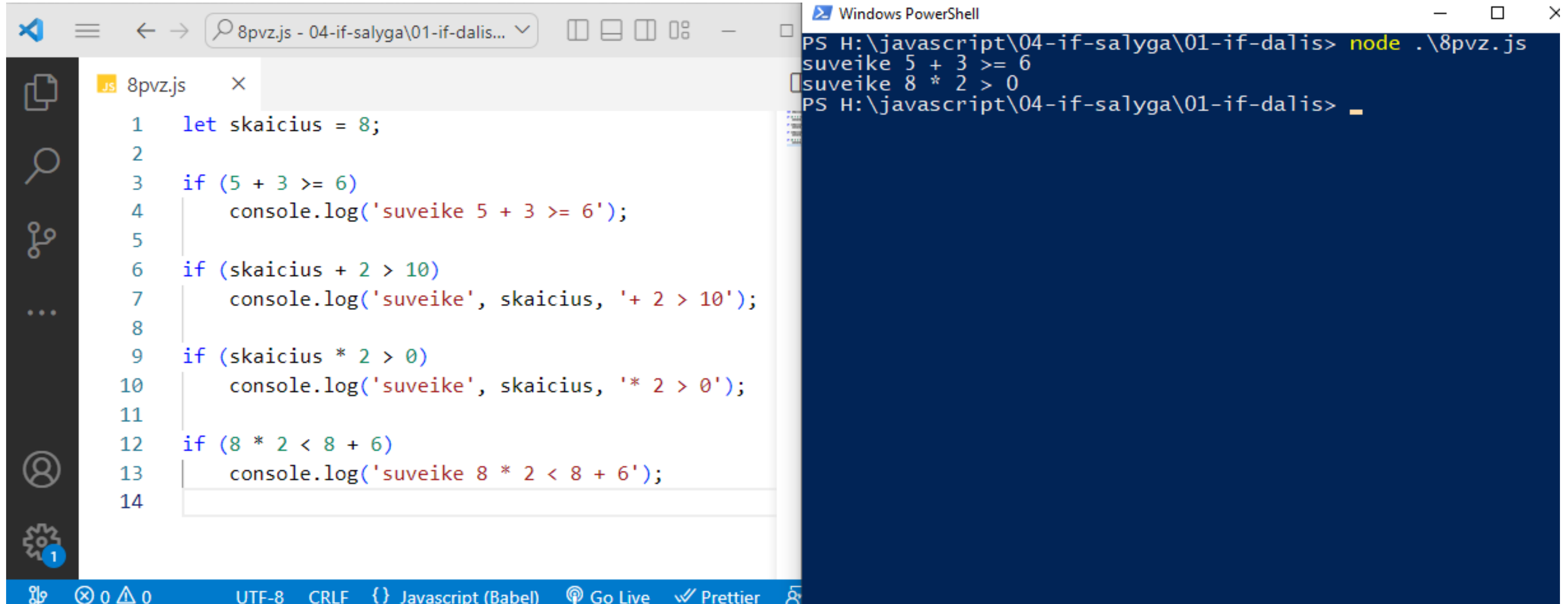


The image shows a side-by-side comparison of a code editor and a terminal. On the left is the Visual Studio Code editor with a file named '7pvz.js' open. The code in the file is as follows:

```
1 let vardas = "Jonas";
2 let amzius = 18;
3
4 if (amzius >= 18) {
5     console.log(vardas, 'yra pilnametis')
6 }
7
```

On the right is a Windows PowerShell terminal window. It shows the command `node .\7pvz.js` being executed, which results in the output `Jonas yra pilnametis`. The terminal prompt is `PS H:\javascript\04-if-salyga\01-if-dalis>`.

Pavyzdys 8



The image shows a Visual Studio Code editor window on the left and a Windows PowerShell terminal on the right. The editor window displays a JavaScript file named `8pvz.js` with the following code:

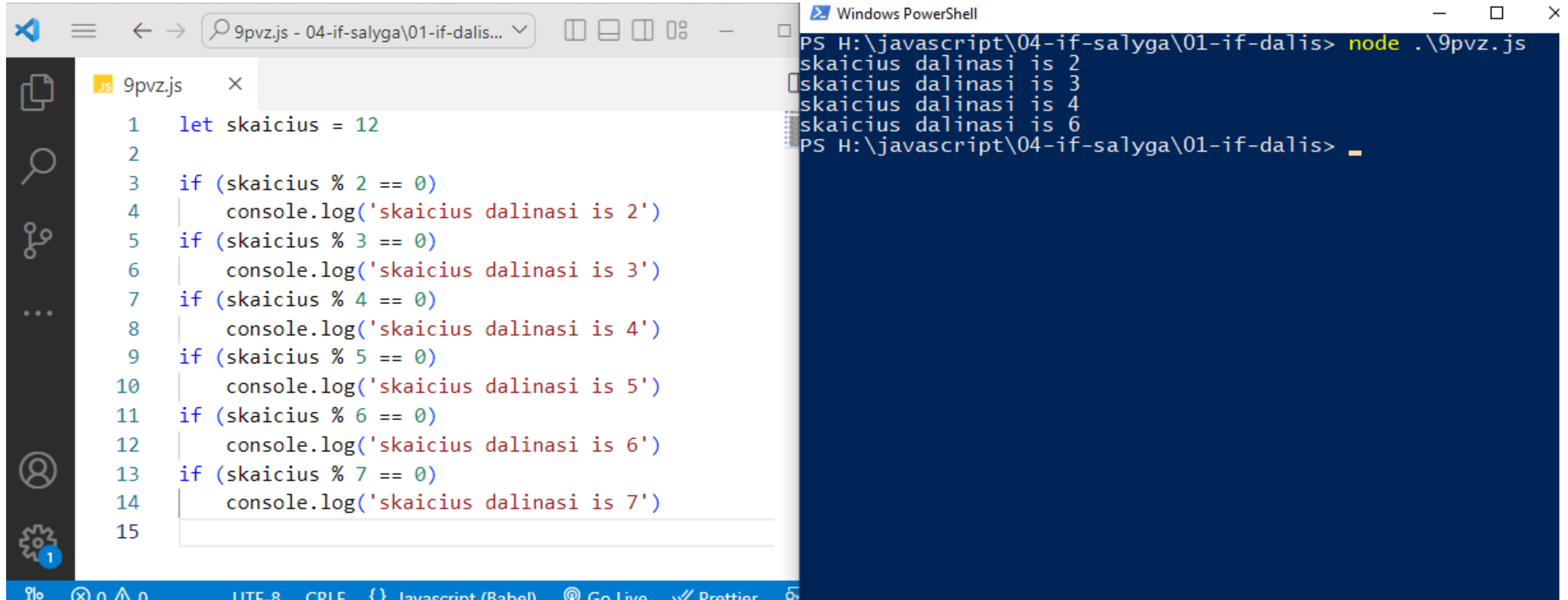
```
1 let skaicius = 8;
2
3 if (5 + 3 >= 6)
4     console.log('suveike 5 + 3 >= 6');
5
6 if (skaicius + 2 > 10)
7     console.log('suveike', skaicius, '+ 2 > 10');
8
9 if (skaicius * 2 > 0)
10    console.log('suveike', skaicius, '* 2 > 0');
11
12 if (8 * 2 < 8 + 6)
13    console.log('suveike 8 * 2 < 8 + 6');
14
```

The PowerShell terminal on the right shows the execution of the script using the `node` command:

```
PS H:\javascript\04-if-salyga\01-if-dalis> node .\8pvz.js
suveike 5 + 3 >= 6
suveike 8 * 2 > 0
PS H:\javascript\04-if-salyga\01-if-dalis>
```

The status bar at the bottom of the VS Code window indicates the file encoding is UTF-8, line endings are CRLF, and the language is Javascript (Babel). It also shows icons for Go Live and Prettier.

Pavyzdys 9

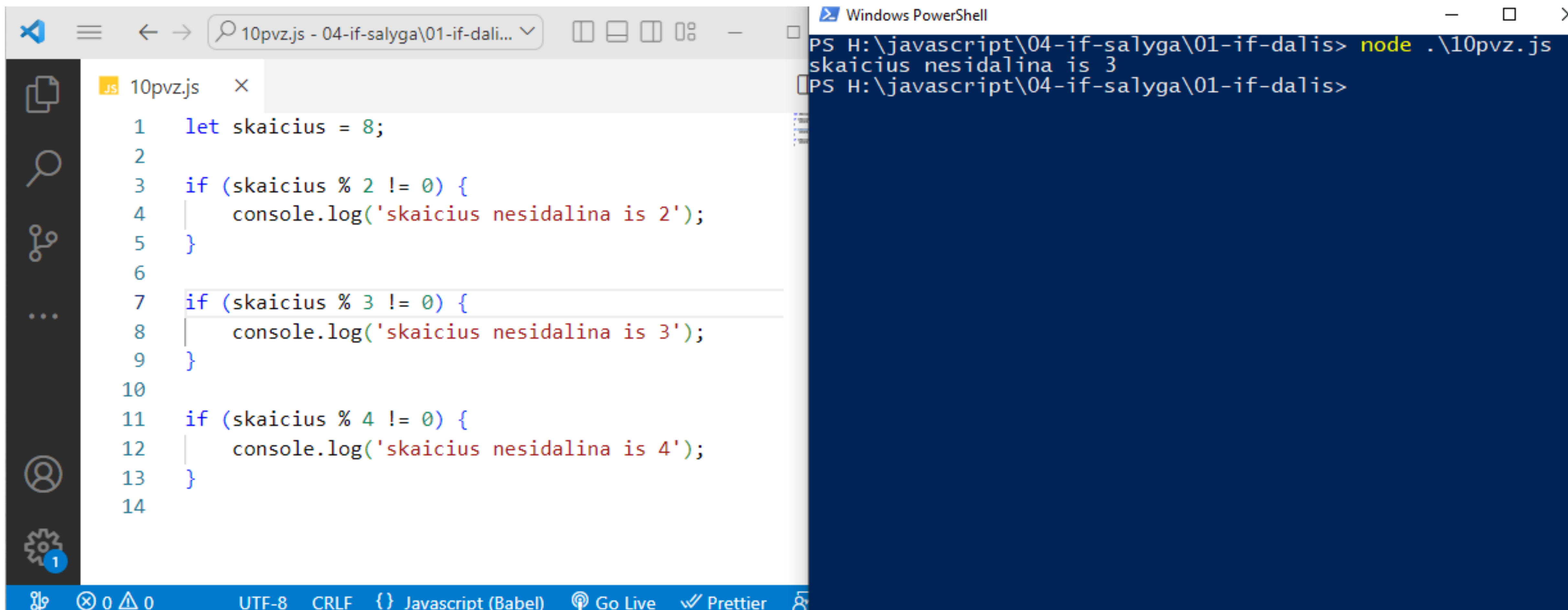


The image shows a development environment with Visual Studio Code on the left and a Windows PowerShell terminal on the right. The VS Code editor has a tab for '9pvz.js' open, displaying a JavaScript script. The script defines a variable 'skaicius' with the value 12 and uses a series of if-statements to check for divisibility by 2 through 7, logging the results to the console. The PowerShell terminal shows the command 'node .\9pvz.js' being executed, which produces the output of the script: 'skaicius dalinasi is 2', 'skaicius dalinasi is 3', 'skaicius dalinasi is 4', and 'skaicius dalinasi is 6'. The terminal window title is 'Windows PowerShell'.

```
9pvz.js
1  let skaicius = 12
2
3  if (skaicius % 2 == 0)
4  |   console.log('skaicius dalinasi is 2')
5  if (skaicius % 3 == 0)
6  |   console.log('skaicius dalinasi is 3')
7  if (skaicius % 4 == 0)
8  |   console.log('skaicius dalinasi is 4')
9  if (skaicius % 5 == 0)
10 |   console.log('skaicius dalinasi is 5')
11 if (skaicius % 6 == 0)
12 |   console.log('skaicius dalinasi is 6')
13 if (skaicius % 7 == 0)
14 |   console.log('skaicius dalinasi is 7')
15

Windows PowerShell
PS H:\javascript\04-if-salyga\01-if-dalis> node .\9pvz.js
skaicius dalinasi is 2
skaicius dalinasi is 3
skaicius dalinasi is 4
skaicius dalinasi is 6
PS H:\javascript\04-if-salyga\01-if-dalis> _
```


Pavyzdys 10



The image shows a development environment with Visual Studio Code on the left and a Windows PowerShell terminal on the right. The VS Code editor has a tab for '10pvz.js' and displays the following JavaScript code:

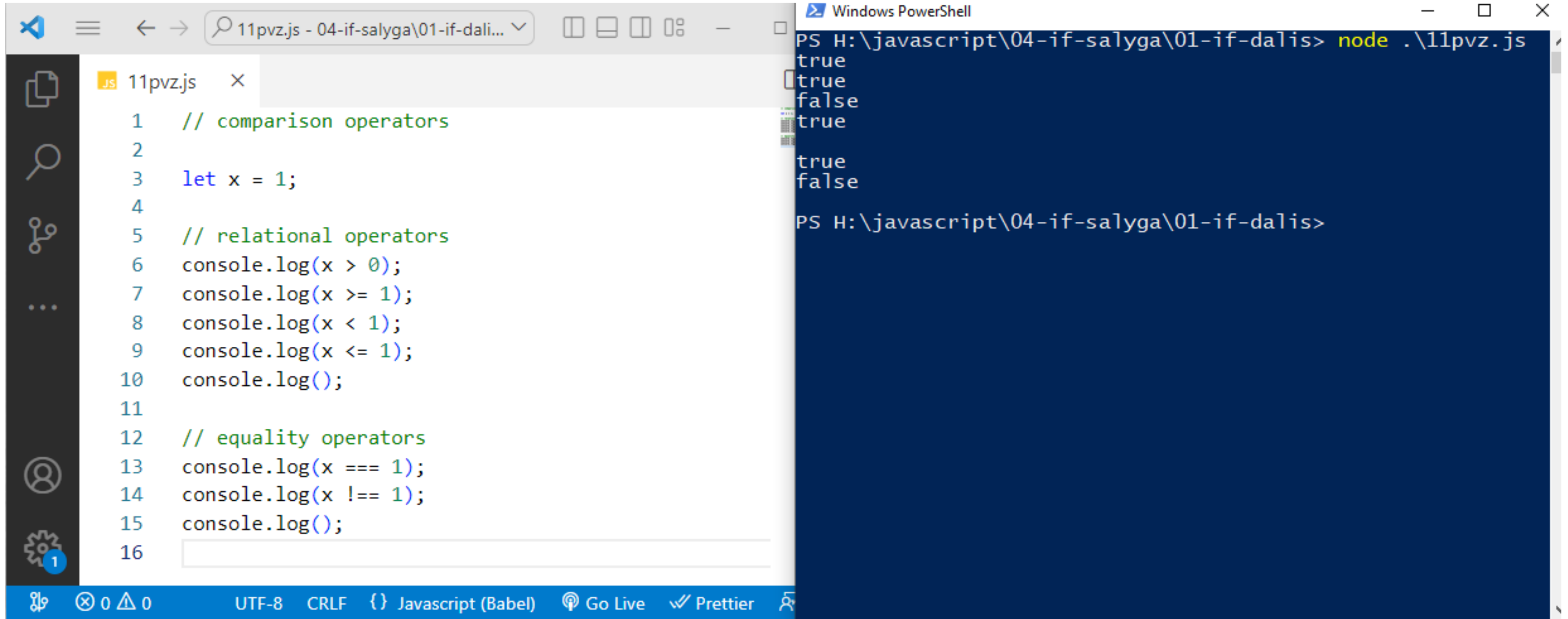
```
1 let skaicius = 8;
2
3 if (skaicius % 2 !== 0) {
4     console.log('skaicius nesidalina is 2');
5 }
6
7 if (skaicius % 3 !== 0) {
8     console.log('skaicius nesidalina is 3');
9 }
10
11 if (skaicius % 4 !== 0) {
12     console.log('skaicius nesidalina is 4');
13 }
14
```

The PowerShell terminal window shows the execution of the script:

```
PS H:\javascript\04-if-salyga\01-if-dalis> node .\10pvz.js
skaicius nesidalina is 3
PS H:\javascript\04-if-salyga\01-if-dalis>
```

The status bar at the bottom of VS Code indicates the file encoding is UTF-8, line endings are CRLF, and the language is Javascript (Babel). It also shows icons for Go Live and Prettier.

Pavyzdys 11



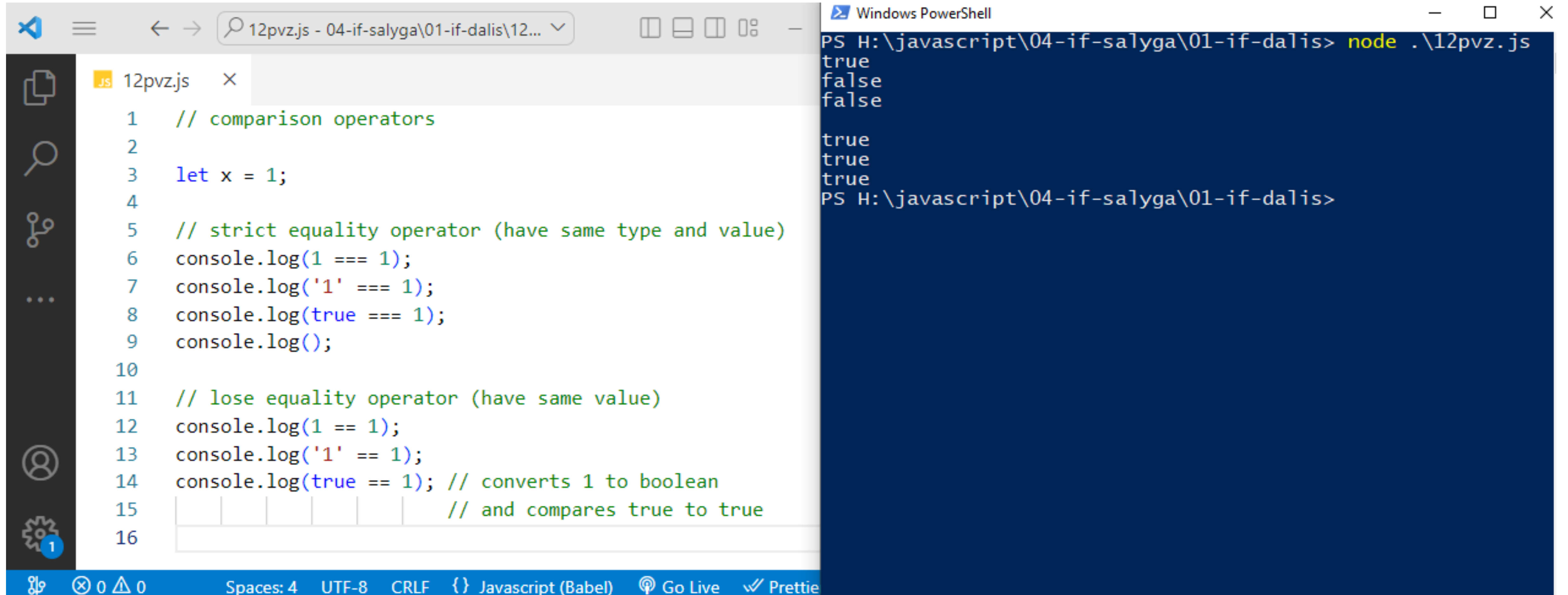
The image shows a Visual Studio Code editor window on the left and a Windows PowerShell terminal on the right. The editor window displays a JavaScript file named `11pvz.js` with the following code:

```
1 // comparison operators
2
3 let x = 1;
4
5 // relational operators
6 console.log(x > 0);
7 console.log(x >= 1);
8 console.log(x < 1);
9 console.log(x <= 1);
10 console.log();
11
12 // equality operators
13 console.log(x === 1);
14 console.log(x !== 1);
15 console.log();
16
```

The PowerShell terminal shows the command `node .\11pvz.js` being executed, resulting in the following output:

```
PS H:\javascript\04-if-salyga\01-if-dalis> node .\11pvz.js
true
true
false
true
true
false
PS H:\javascript\04-if-salyga\01-if-dalis>
```

Pavyzdys 12



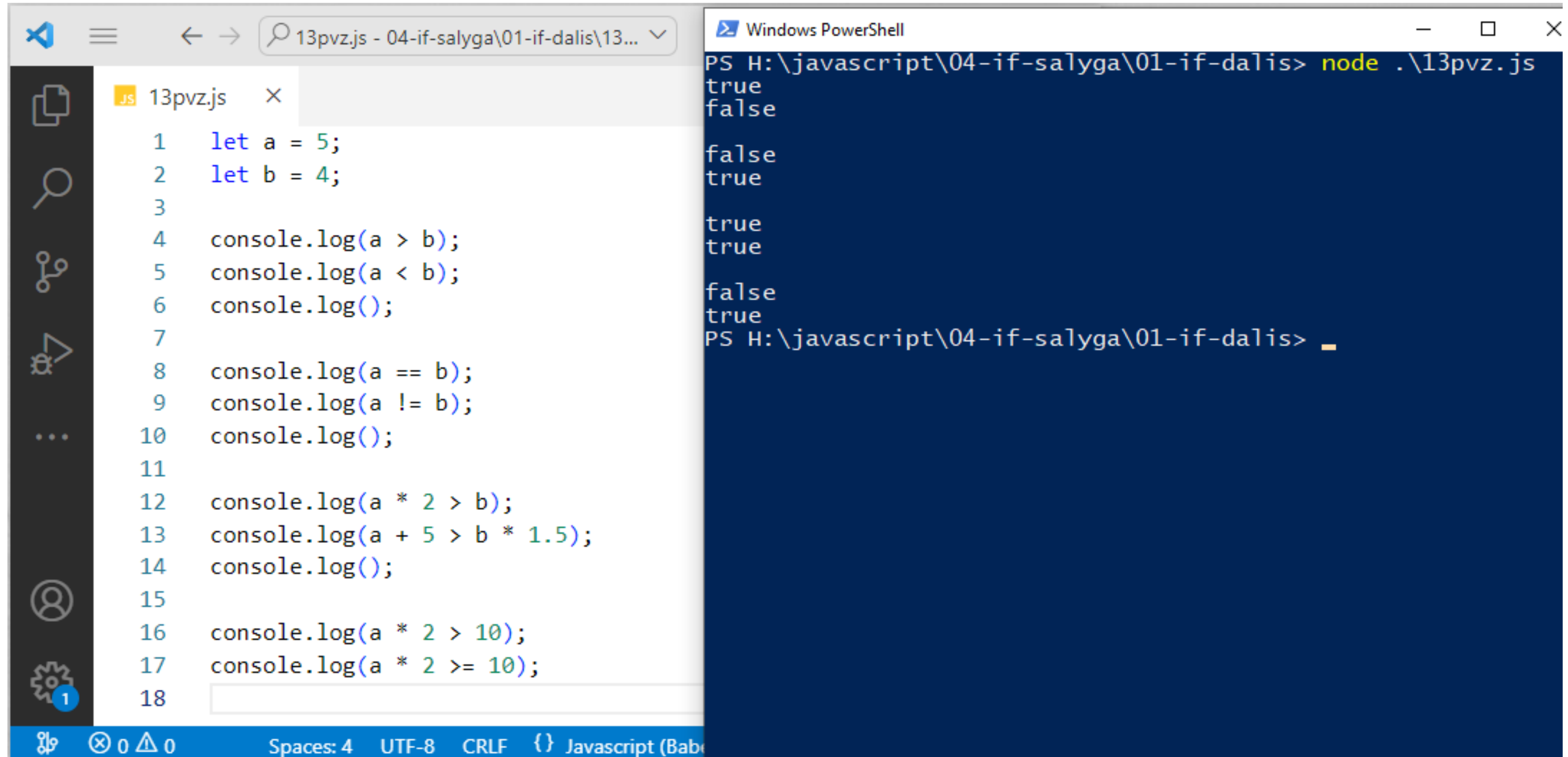
The image shows a side-by-side comparison of a code editor and a terminal window. The code editor on the left is Visual Studio Code, displaying a JavaScript file named '12pvz.js'. The code defines two comparison operators: 'strict equality' (===) and 'loose equality' (==). It then uses console.log to output the results of various comparisons. The terminal window on the right is Windows PowerShell, showing the execution of the script using 'node .\12pvz.js'. The output of the script is displayed in the terminal, showing the results of the comparisons: true, false, false, true, true, true, and PS H:\javascript\04-if-salyga\01-if-dalis>.

```
1 // comparison operators
2
3 let x = 1;
4
5 // strict equality operator (have same type and value)
6 console.log(1 === 1);
7 console.log('1' === 1);
8 console.log(true === 1);
9 console.log();
10
11 // loose equality operator (have same value)
12 console.log(1 == 1);
13 console.log('1' == 1);
14 console.log(true == 1); // converts 1 to boolean
15 // and compares true to true
16
```

```
PS H:\javascript\04-if-salyga\01-if-dalis> node .\12pvz.js
true
false
false

true
true
true
PS H:\javascript\04-if-salyga\01-if-dalis>
```

Pavyzdys 13



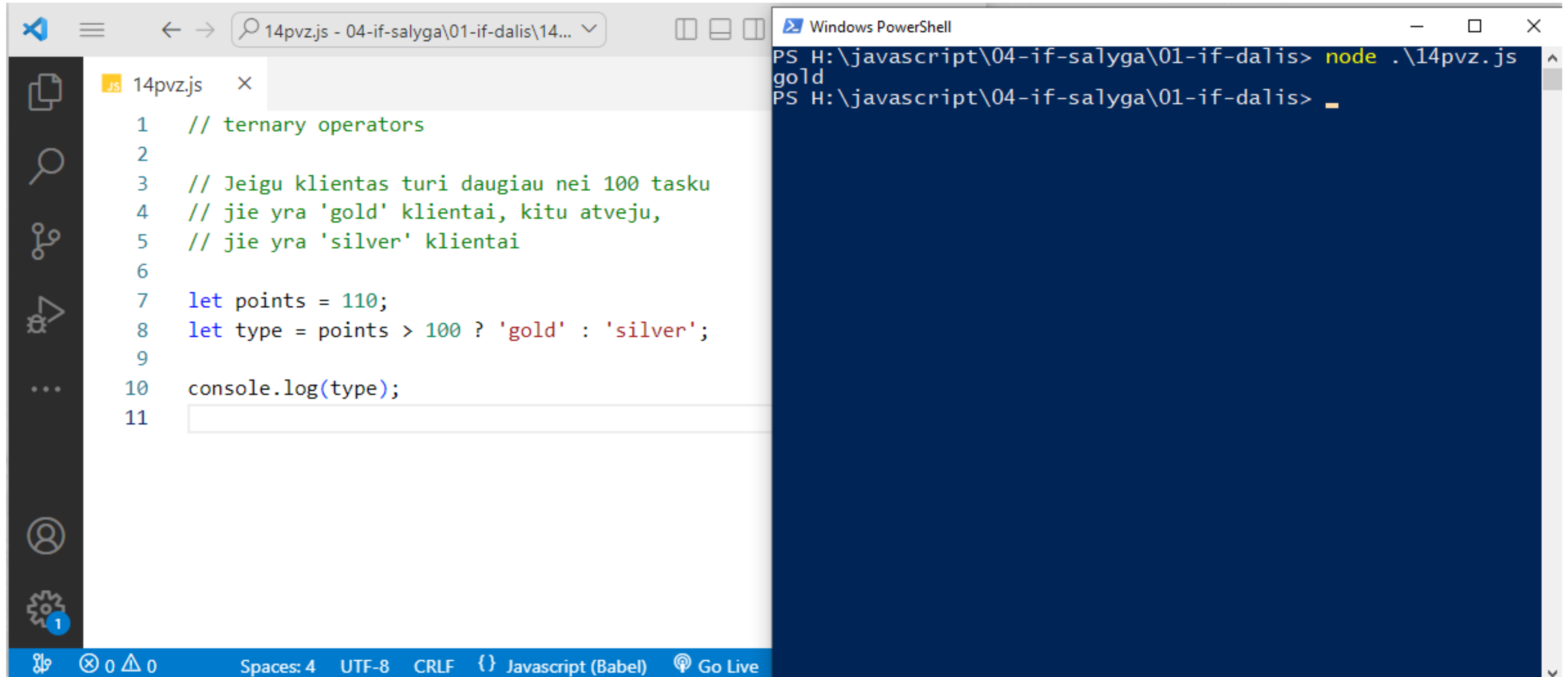
The image shows a side-by-side comparison of a code editor and a terminal window. The code editor on the left is Visual Studio Code, displaying a file named `13pvz.js` with 18 lines of JavaScript code. The code defines two variables, `a` and `b`, and then uses `console.log` to output various boolean expressions involving `a` and `b`. The terminal window on the right is Windows PowerShell, showing the command `node .\13pvz.js` being executed, which results in the same sequence of boolean values being printed to the console as the code in the editor.

```
13pvz.js - 04-if-salyga\01-if-dalis\13...
1  let a = 5;
2  let b = 4;
3
4  console.log(a > b);
5  console.log(a < b);
6  console.log();
7
8  console.log(a == b);
9  console.log(a != b);
10 console.log();
11
12 console.log(a * 2 > b);
13 console.log(a + 5 > b * 1.5);
14 console.log();
15
16 console.log(a * 2 > 10);
17 console.log(a * 2 >= 10);
18

Windows PowerShell
PS H:\javascript\04-if-salyga\01-if-dalis> node .\13pvz.js
true
false
false
true
true
true
false
true
PS H:\javascript\04-if-salyga\01-if-dalis> 
```

Spaces: 4 UTF-8 CRLF {} Javascript (Bab)

Pavyzdys 14

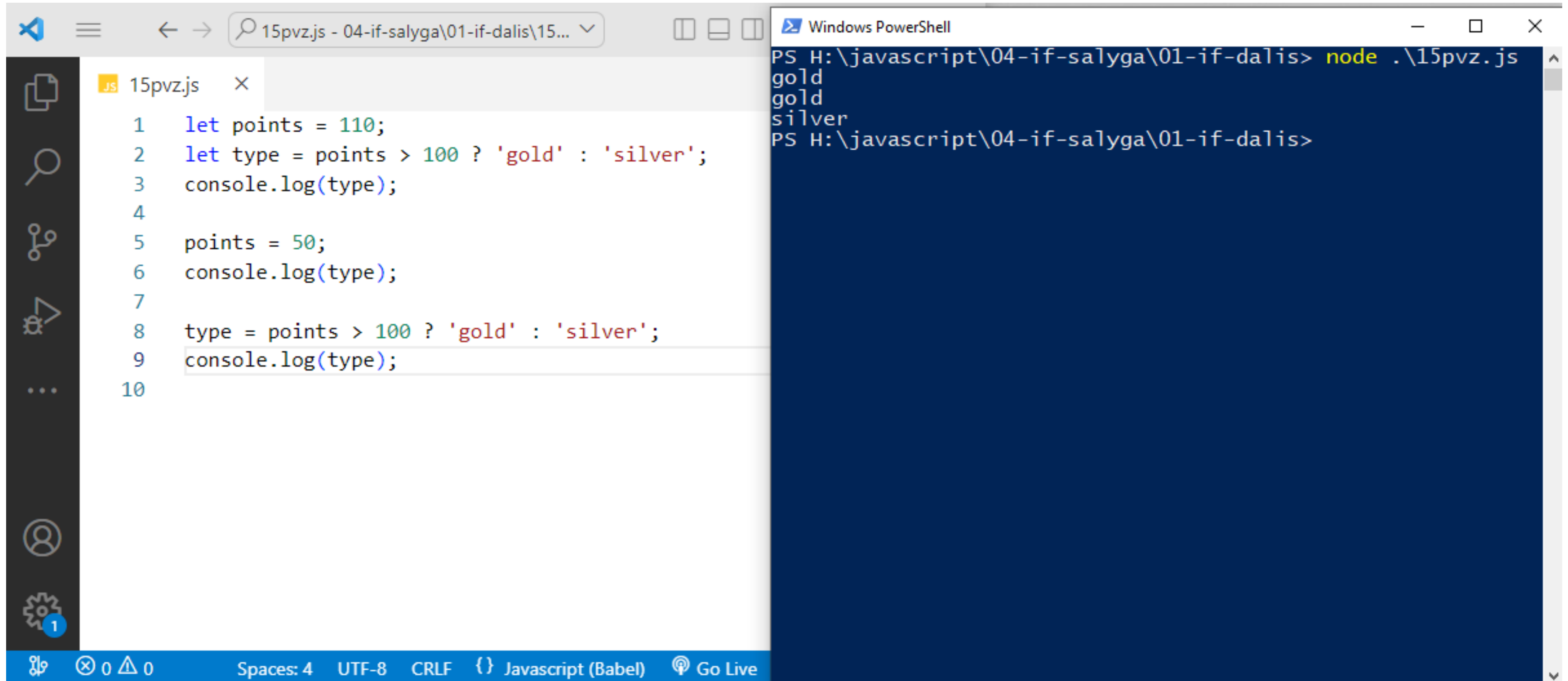


The image shows a development environment with two windows. The left window is Visual Studio Code, displaying a JavaScript file named `14pvz.js`. The code uses a ternary operator to determine a client's status based on their points. The right window is a Windows PowerShell terminal, showing the execution of the script with the output `gold`.

```
1 // ternary operators
2
3 // Jeigu klientas turi daugiau nei 100 tasku
4 // jie yra 'gold' klientai, kitu atveju,
5 // jie yra 'silver' klientai
6
7 let points = 110;
8 let type = points > 100 ? 'gold' : 'silver';
9
10 console.log(type);
11
```

```
PS H:\javascript\04-if-salyga\01-if-dalis> node .\14pvz.js
gold
PS H:\javascript\04-if-salyga\01-if-dalis>
```

Pavyzdys 15



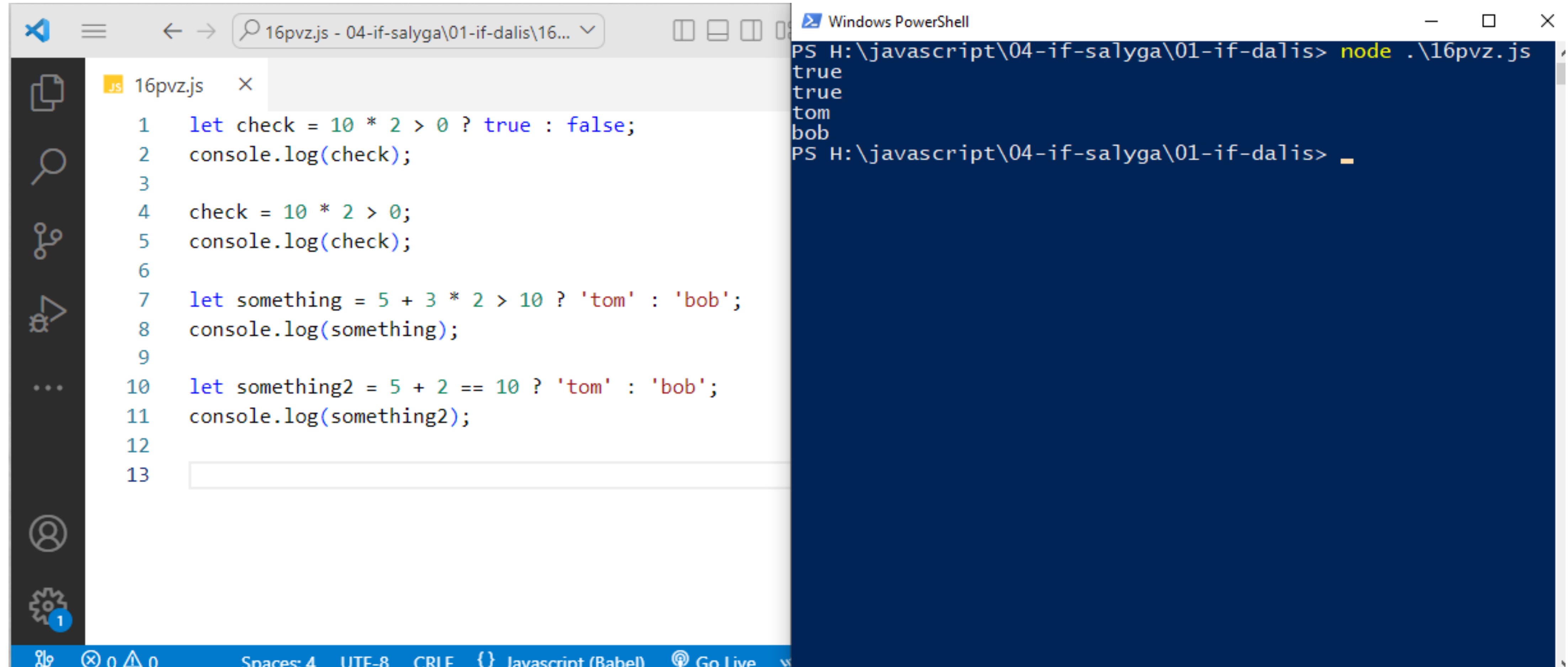
The image shows a Visual Studio Code editor window on the left and a Windows PowerShell terminal on the right. The editor window displays a file named `15pvz.js` with the following JavaScript code:

```
1 let points = 110;
2 let type = points > 100 ? 'gold' : 'silver';
3 console.log(type);
4
5 points = 50;
6 console.log(type);
7
8 type = points > 100 ? 'gold' : 'silver';
9 console.log(type);
10
```

The PowerShell terminal shows the execution of the script using the command `node .\15pvz.js`. The output of the script is displayed as follows:

```
PS H:\javascript\04-if-salyga\01-if-dalis> node .\15pvz.js
gold
gold
silver
PS H:\javascript\04-if-salyga\01-if-dalis>
```

Pavyzdys 16



The image shows a development environment with two windows. The left window is Visual Studio Code, displaying a JavaScript file named `16pvz.js`. The code in the file is as follows:

```
1 let check = 10 * 2 > 0 ? true : false;
2 console.log(check);
3
4 check = 10 * 2 > 0;
5 console.log(check);
6
7 let something = 5 + 3 * 2 > 10 ? 'tom' : 'bob';
8 console.log(something);
9
10 let something2 = 5 + 2 == 10 ? 'tom' : 'bob';
11 console.log(something2);
12
13
```

The right window is a Windows PowerShell terminal. It shows the command `node .\16pvz.js` being executed, which results in the following output:

```
PS H:\javascript\04-if-salyga\01-if-dalis> node .\16pvz.js
true
true
tom
bob
PS H:\javascript\04-if-salyga\01-if-dalis>
```

The status bar at the bottom of the VS Code window indicates the following settings: Spaces: 4, UTF-8, CRLF, Javascript (Babel), and Go Live.

Užduotys (1/2)

1. Susikurkite tris kintamuosius skaičiams saugoti. Parašykite šias atskiras if sąlygas:
 1. Ar pirmas ir antras skaičiai yra lygūs?
 2. Ar antras ir trečias skaičiai yra lygūs?
 3. Ar pirmas skaičius yra didesnis už antrąjį?
 4. Ar antras skaičius yra didesnis už dvigubą trečiojo skaičiaus reikšmę (trečias skaičius padaugintas iš 2)?
 5. Ar pirmas skaičius yra lyginis (ar dalinasi iš 2)?
 6. Ar antras skaičius yra nelyginis (ar nesidalina iš 2)?
 7. Ar trečias skaičius yra teigiamas (didesnis už 0)?
 8. Ar pirmas skaičius yra neigiamas (mažesnis už 0)?
 9. Ar antras skaičius dalinasi iš 4?
 10. Ar trečias skaičius dalinasi iš 8?

Užduotys (2/2)

2. Susikurkite kintamąjį vartotojo amžiui saugoti. Patikrinkite ar amžius yra didesnis arba lygus 18-ai, jei taip - išveskite "jūs galite balsuoti".
3. Susikurkite kelis kintamuosius saugoti pažymiams. Raskite šių pažymių vidurkį. Patikrinkite ar vidurkis teigiamas (daugiau arba lygu 5-iems), jei taip - išveskite "vidurkis teigiamas".
4. Susikurkite skaičiaus kintamąjį. Atlikite šiuos patikrinimus ir veiksmus:
 1. Jei skaičius dalinasi iš 5, tuomet išveskite šio skaičiaus daugybos lentelę nuo 1 iki 5.
 2. Jei skaičius lyginis, tuomet išveskite šį skaičių, jo kvadratą ir jį padalintą iš 2.
 3. Jei skaičius nesidalina iš 7, tuomet susikurkite antrąjį kintamąjį, išveskite šių dviejų skaičių sumą, skirtumą, sandaugą, dalmenį.

Patikrinimo sąlyga if

else if dalis

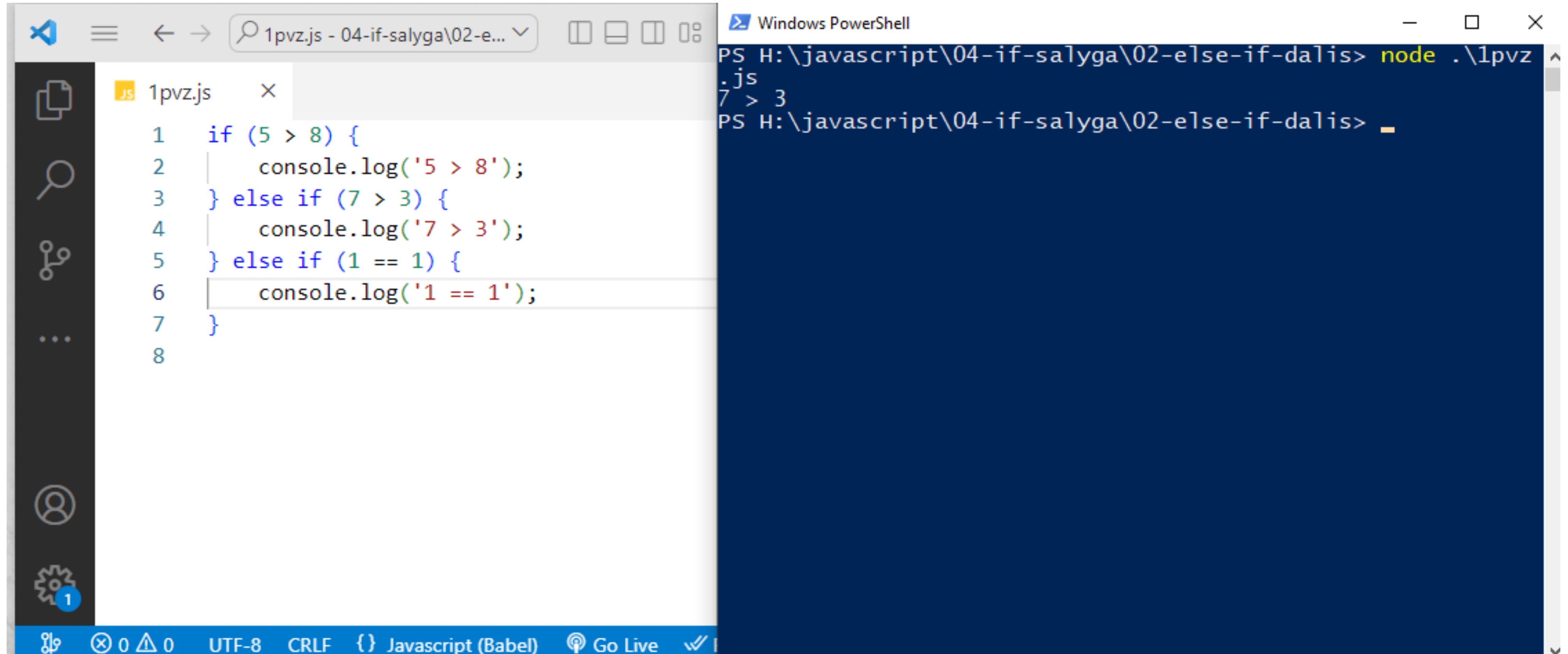
else if sąlyga

- Naudojant tik if dalį tikriausiai pastebėjote, kad tikrinate tik vieną dalyką. Else if leidžia tikrinti kelis dalykus vieną po kito. Pavyzdžiui:
 - Ar skaičius teigiamas? Jei ne - sekantis tikrinimas: o gal skaičius neigiamas?
 - Ar vartotojui yra 18 metų? Jei ne - sekantis tikrinimas: o gal vartotojui yra 16 metų? Jei ne - sekantis tikrinimas - o gal vartotojui mažiau nei 16?
- Galima naudoti tiek else if dalių kiek tik reikia.
- Kiekviena else if dalis atsakinga už naujos sąlygos patikrinimą.
- Jei tikrinant skirtingas sąlygas (einant per if ir else if dalis) yra randama teisinga, tuomet jai priskirtas kodas yra įvykdomas ir sekančios sąlygos nebetikrinamos. T.y. yra vykdoma tik pirma teisinga sąlyga.

else if sąlygos sintaksė

```
if (pirma sąlyga) {  
    // ...  
} else if (antra sąlyga) {  
    // ...  
} else if (trečia sąlyga) {  
    // ...  
}
```

Pavyzdys 1

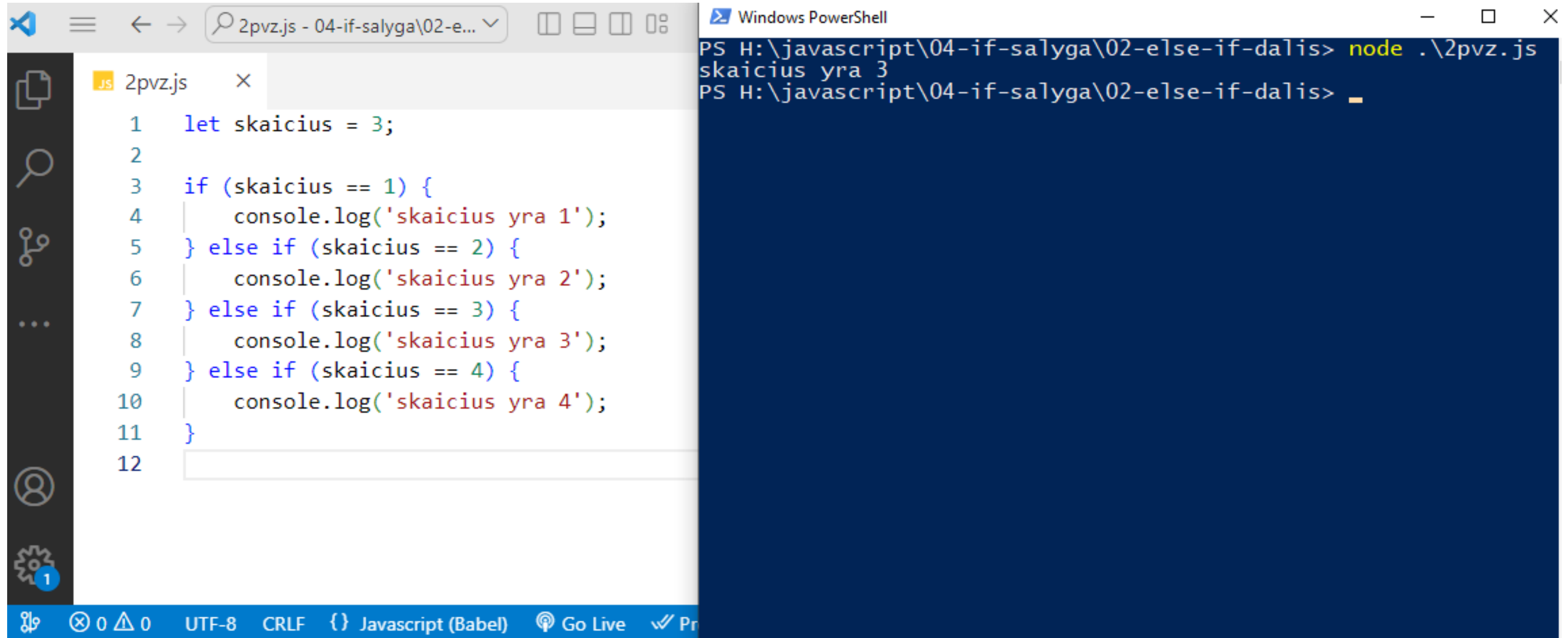


The image shows a side-by-side comparison of a code editor and a terminal. On the left is the Visual Studio Code editor with a file named '1pvz.js' open. The code is a JavaScript snippet using 'if...else if' statements to log different messages based on comparisons. On the right is a Windows PowerShell terminal window showing the command 'node .\1pvz.js' being executed, which results in the output '7 > 3'.

```
1  if (5 > 8) {  
2    console.log('5 > 8');  
3  } else if (7 > 3) {  
4    console.log('7 > 3');  
5  } else if (1 == 1) {  
6    console.log('1 == 1');  
7  }  
8
```

```
PS H:\javascript\04-if-salyga\02-else-if-dalis> node .\1pvz.js  
7 > 3  
PS H:\javascript\04-if-salyga\02-else-if-dalis>
```

Pavyzdys 2

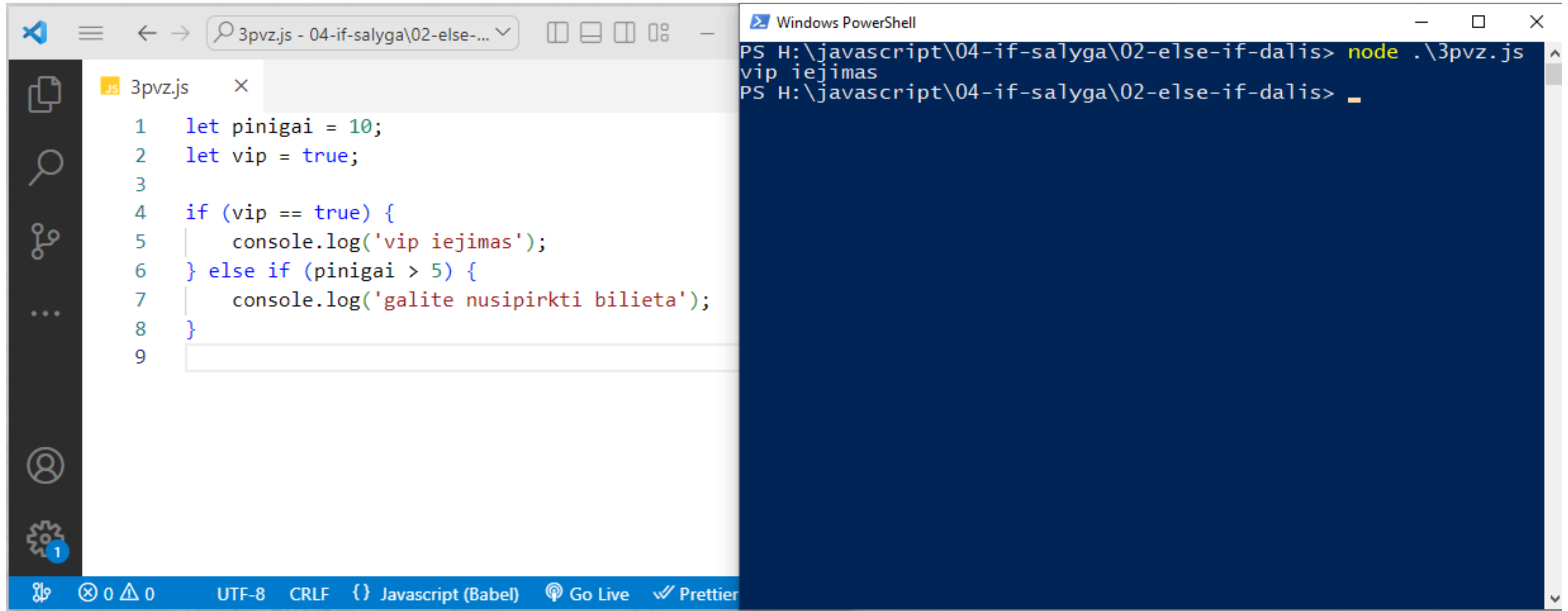


The image shows a side-by-side comparison of a code editor and a terminal. On the left, the Visual Studio Code editor displays a file named `2pvz.js` with the following JavaScript code:

```
1 let skaicius = 3;
2
3 if (skaicius == 1) {
4   console.log('skaicius yra 1');
5 } else if (skaicius == 2) {
6   console.log('skaicius yra 2');
7 } else if (skaicius == 3) {
8   console.log('skaicius yra 3');
9 } else if (skaicius == 4) {
10  console.log('skaicius yra 4');
11 }
12
```

On the right, a Windows PowerShell terminal window shows the execution of the script. The prompt is `PS H:\javascript\04-if-salyga\02-else-if-dalis>`. The command `node .\2pvz.js` has been entered, and the output is `skaicius yra 3`. The prompt is now `PS H:\javascript\04-if-salyga\02-else-if-dalis>` with a cursor.

Pavyzdys 3



The image shows a Visual Studio Code editor window on the left and a Windows PowerShell terminal on the right. The editor window displays a JavaScript file named `3pvz.js` with the following code:

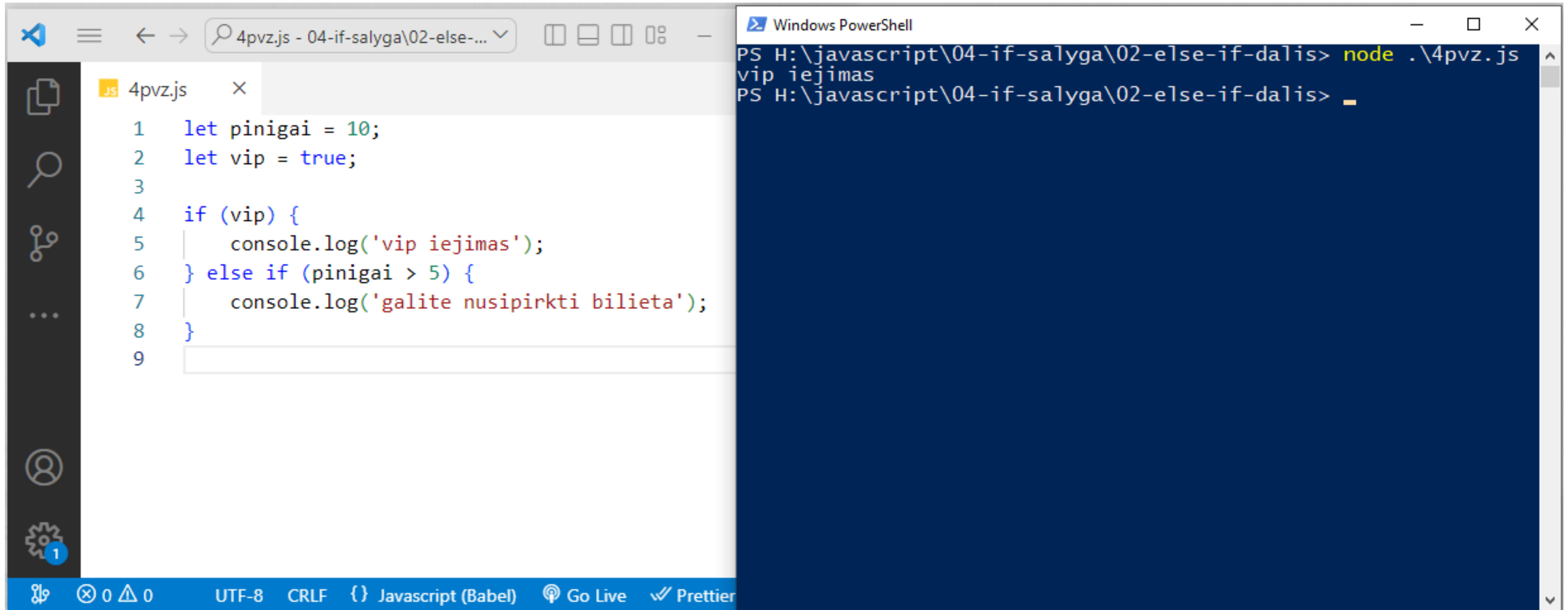
```
1 let pinigai = 10;  
2 let vip = true;  
3  
4 if (vip == true) {  
5     console.log('vip iejimas');  
6 } else if (pinigai > 5) {  
7     console.log('galite nusipirkti bilieta');  
8 }  
9
```

The PowerShell terminal window shows the execution of the script:

```
PS H:\javascript\04-if-salyga\02-else-if-dalis> node .\3pvz.js  
vip iejimas  
PS H:\javascript\04-if-salyga\02-else-if-dalis>
```

The status bar at the bottom of the VS Code window indicates the file encoding is UTF-8, line endings are CRLF, and the language is Javascript (Babel). It also shows icons for Go Live and Prettier.

Pavyzdys 4



The image shows a development environment with Visual Studio Code on the left and a Windows PowerShell terminal on the right. The VS Code editor has a tab for '4pvz.js' open, showing the following JavaScript code:

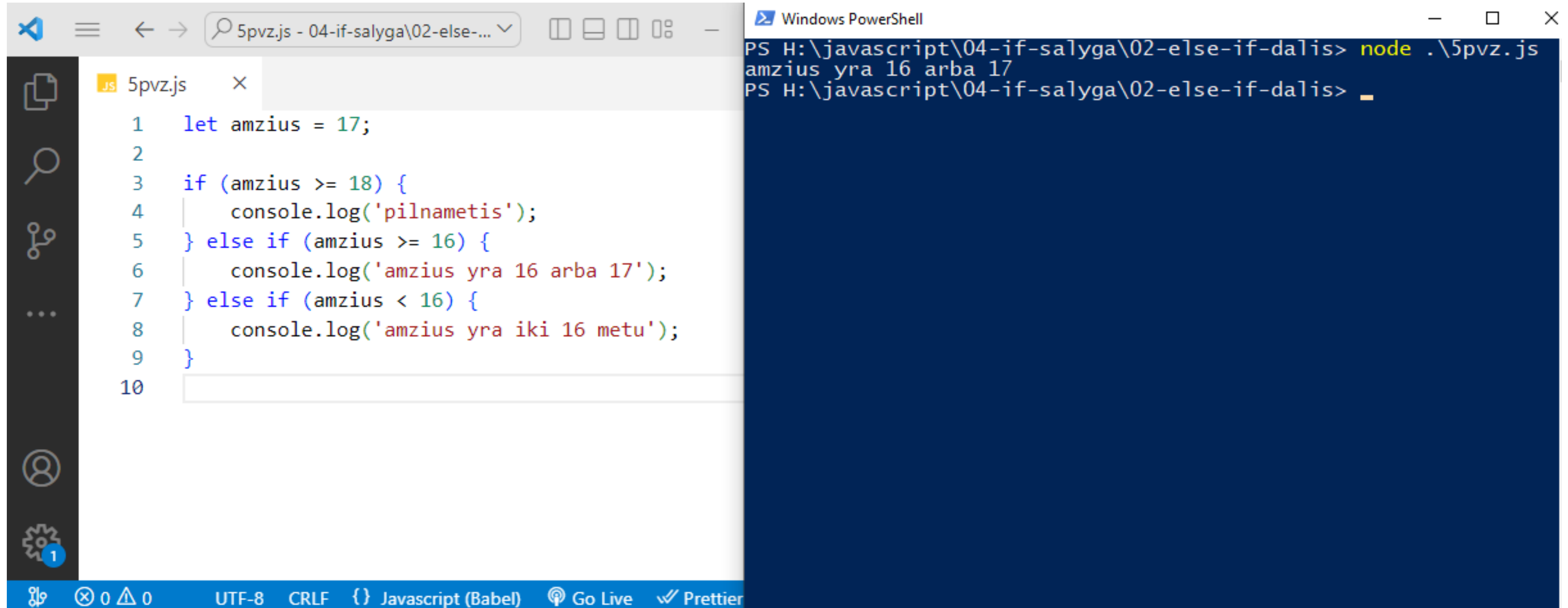
```
1 let pinigai = 10;
2 let vip = true;
3
4 if (vip) {
5     console.log('vip iejimas');
6 } else if (pinigai > 5) {
7     console.log('galite nusipirkti bilieta');
8 }
9
```

The PowerShell terminal window shows the execution of the script. The prompt is 'PS H:\javascript\04-if-salyga\02-else-if-dalis>' and the command entered is 'node .\4pvz.js'. The output of the script is 'vip iejimas'.

```
PS H:\javascript\04-if-salyga\02-else-if-dalis> node .\4pvz.js
vip iejimas
PS H:\javascript\04-if-salyga\02-else-if-dalis>
```

The VS Code status bar at the bottom indicates the file encoding is UTF-8, line endings are CRLF, and the language is Javascript (Babel). It also shows icons for Go Live and Prettier.

Pavyzdys 5

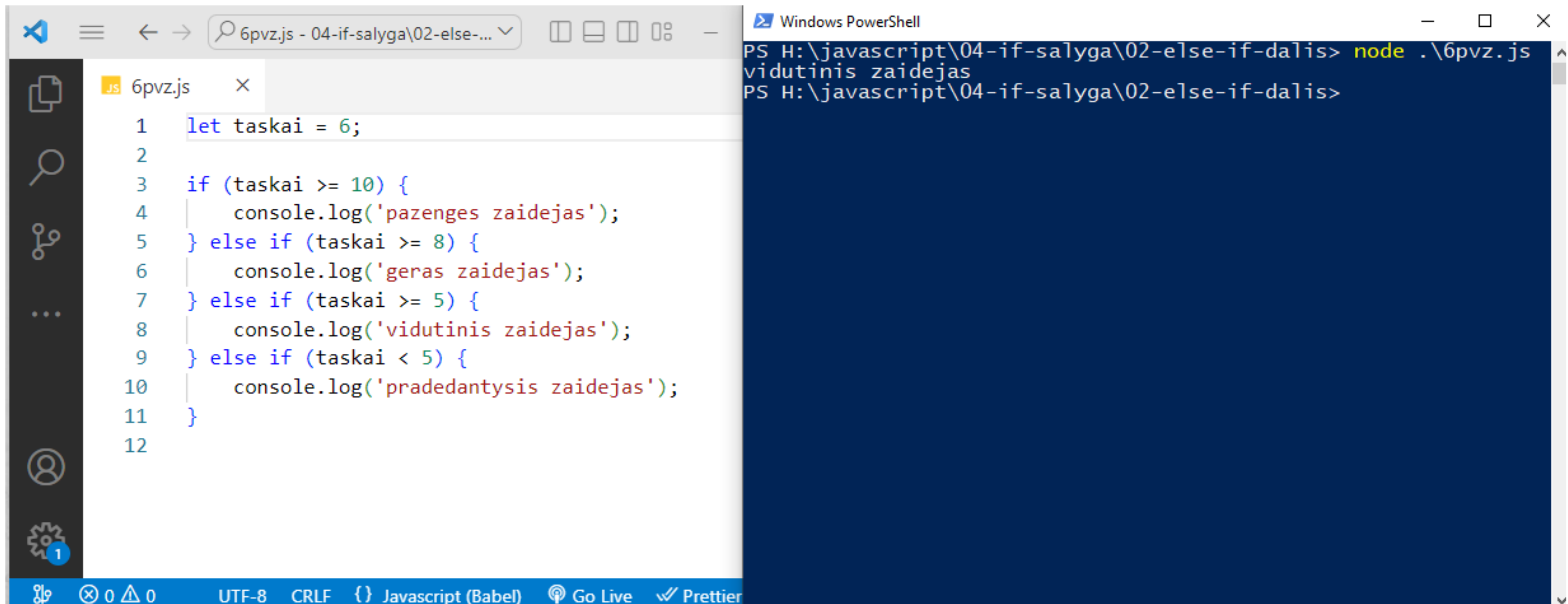


The image shows a side-by-side comparison of a code editor and a terminal. On the left, the Visual Studio Code editor displays a file named '5pvz.js' with the following JavaScript code:

```
1 let amzius = 17;  
2  
3 if (amzius >= 18) {  
4     console.log('pilnametis');  
5 } else if (amzius >= 16) {  
6     console.log('amzius yra 16 arba 17');  
7 } else if (amzius < 16) {  
8     console.log('amzius yra iki 16 metu');  
9 }  
10
```

On the right, a Windows PowerShell terminal window shows the execution of the script. The prompt is 'PS H:\javascript\04-if-salyga\02-else-if-dalis>'. The command 'node .\5pvz.js' has been entered, and the output is 'amzius yra 16 arba 17'. The prompt is now 'PS H:\javascript\04-if-salyga\02-else-if-dalis>' with a cursor.

Pavyzdys 6

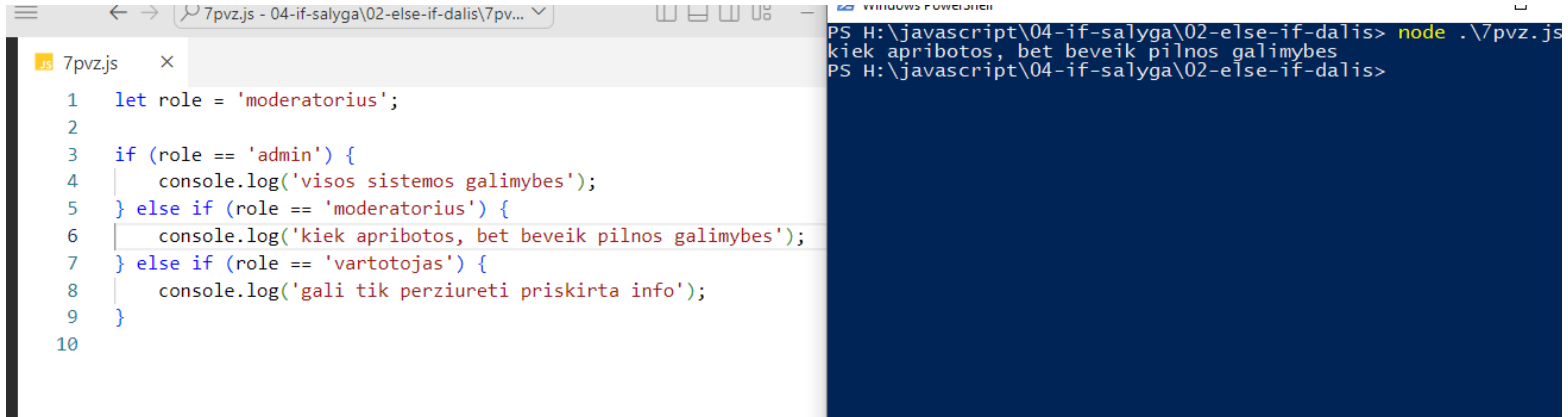


The image shows a side-by-side comparison of a code editor and a terminal. On the left is the Visual Studio Code editor with a file named '6pvz.js' open. The code is a JavaScript script that initializes a variable 'taskai' to 6 and then uses a series of 'if-else-if' statements to log different messages based on the value of 'taskai'. Since 'taskai' is 6, the message 'vidutinis zaidejas' will be logged. On the right is a Windows PowerShell terminal window showing the execution of the script using the 'node' command. The output of the script is visible in the terminal.

```
6pvz.js
1 let taskai = 6;
2
3 if (taskai >= 10) {
4   console.log('pazenges zaidejas');
5 } else if (taskai >= 8) {
6   console.log('geras zaidejas');
7 } else if (taskai >= 5) {
8   console.log('vidutinis zaidejas');
9 } else if (taskai < 5) {
10  console.log('pradedantysis zaidejas');
11 }
12
```

```
Windows PowerShell
PS H:\javascript\04-if-salyga\02-else-if-dalis> node .\6pvz.js
vidutinis zaidejas
PS H:\javascript\04-if-salyga\02-else-if-dalis>
```

Pavyzdys 7



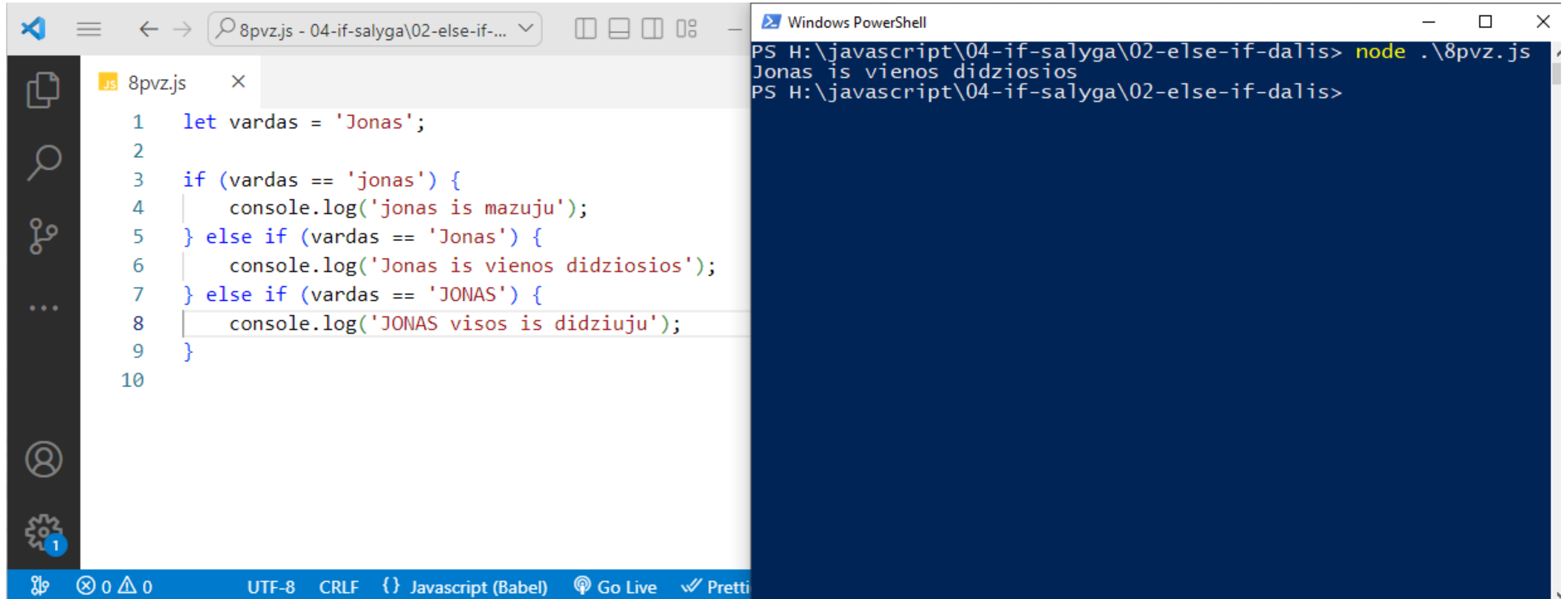
The image shows a code editor window on the left and a Windows PowerShell terminal on the right. The code editor displays a JavaScript file named 7pvz.js with the following content:

```
1 let role = 'moderatorius';
2
3 if (role == 'admin') {
4     console.log('visos sistemos galimybes');
5 } else if (role == 'moderatorius') {
6     console.log('kiek apribotos, bet beveik pilnos galimybes');
7 } else if (role == 'vartotojas') {
8     console.log('gali tik perziureti priskirta info');
9 }
10
```

The PowerShell terminal on the right shows the execution of the script:

```
PS H:\javascript\04-if-salyga\02-else-if-dalis> node .\7pvz.js
kiek apribotos, bet beveik pilnos galimybes
PS H:\javascript\04-if-salyga\02-else-if-dalis>
```

Pavyzdys 8



The image shows a Visual Studio Code editor window on the left and a Windows PowerShell terminal on the right. The editor window displays a JavaScript file named `8pvz.js` with the following code:

```
1 let vardas = 'Jonas';  
2  
3 if (vardas == 'jonas') {  
4     console.log('jonas is mazuju');  
5 } else if (vardas == 'Jonas') {  
6     console.log('Jonas is vienos didziosios');  
7 } else if (vardas == 'JONAS') {  
8     console.log('JONAS visos is didziuju');  
9 }  
10
```

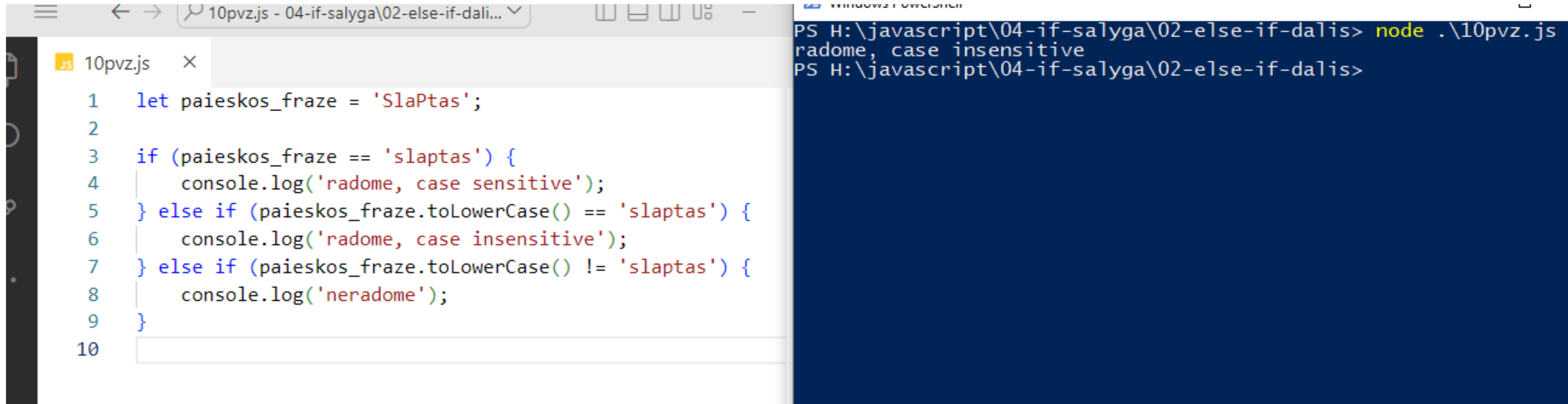
The PowerShell terminal on the right shows the command `node .\8pvz.js` being executed, which results in the output: `Jonas is vienos didziosios`.

Pavyzdys 9

```
9pvz.js x
1  let vardas = 'Petras';
2
3  if (vardas.includes('ABC')) {
4      console.log('varde', vardas, 'yra ABC');
5  } else if (vardas.startsWith('Pe')) {
6      console.log('vardas', vardas, 'prasideda su Pe');
7  } else if (vardas.endsWith('as')) {
8      console.log('vardas', vardas, 'baigiasi su as');
9  }
10
```

```
PS H:\javascript\04-if-salyga\02-else-if-dalis> node .\9pvz.js
vardas Petras prasideda su Pe
PS H:\javascript\04-if-salyga\02-else-if-dalis> _
```


Pavyzdys 10



The image shows a code editor window on the left and a terminal window on the right. The code editor displays a JavaScript file named 10pvz.js with the following code:

```
1 let paieskos_fraze = 'SlaPtas';
2
3 if (paieskos_fraze == 'slaptas') {
4     console.log('radome, case sensitive');
5 } else if (paieskos_fraze.toLowerCase() == 'slaptas') {
6     console.log('radome, case insensitive');
7 } else if (paieskos_fraze.toLowerCase() != 'slaptas') {
8     console.log('neradome');
9 }
10
```

The terminal window on the right shows the execution of the script using Node.js. The command `node .\10pvz.js` is entered, and the output is `radome, case insensitive`.

Užduotys (1/2)

5. Susikurkite tris skaičių kintamuosius. Patikrinkite šias sąlygas (naudojant `else if` dalis):

1. Ar pirmas skaičius didesnis už antrą?
2. Ar antras skaičius didesnis už trečią?
3. Ar trečias skaičius didesnis už pirmą?
4. Ar pirmi du skaičiai yra lygūs?
5. Ar paskutiniai du skaičiai yra lygūs?
6. Ar pirmas skaičius yra lygus 0?
7. Ar antras skaičius neigiamas?
8. Ar trečias skaičius teigiamas?

Užduotys (2/2)

6. Susikurkite kintamąjį egzamino pažymiui saugoti [0-10]. Naudojant else if dalis patikrinkite šias sąlygas ir išveskite atitinkamą tekstą:
 1. Jei pažymys yra lygus 10 išvesti "puiku".
 2. Jei pažymys yra lygus arba didesnis nei 9 išvesti "labai gerai".
 3. Jei pažymys yra lygus arba didesnis nei 7 išvesti "gerai".
 4. Jei pažymys yra lygus arba didesnis nei 5 išvesti "patenkinamai".
 5. Jei pažymys mažesnis nei 5 išvesti "egzaminas neišlaikytas".

Patikrinimo sąlyga if

else dalis

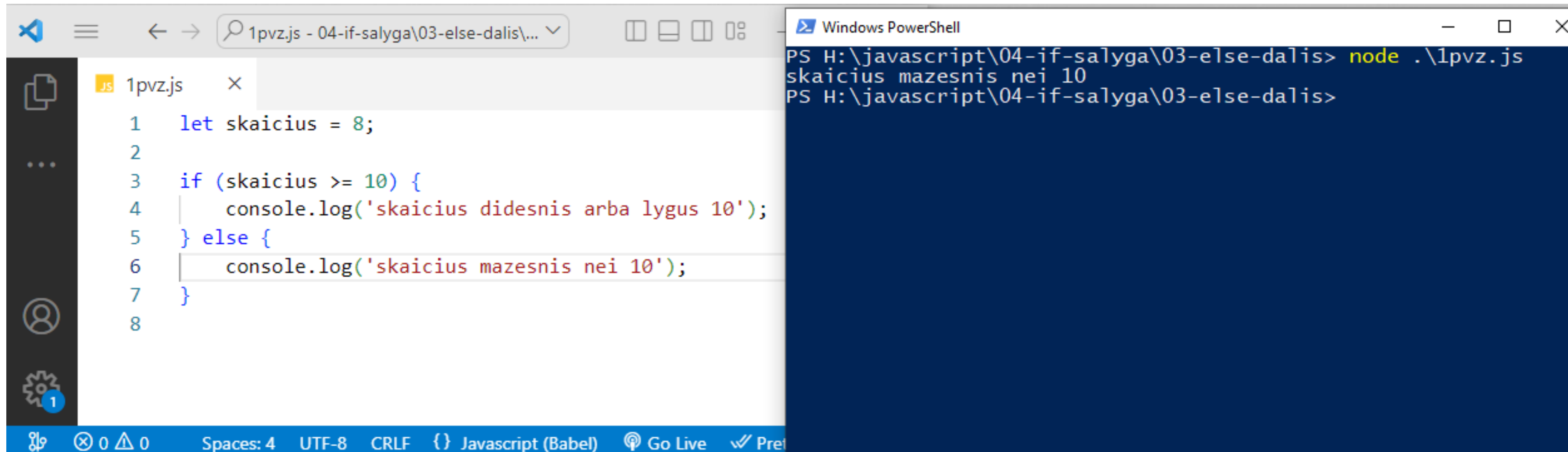
else sąlyga

- else bus vykdomas visada kai jokia kita, prieš jįėjusi sąlyga nebus teisinga.
- else dalyje nebereikia rašyti jokios sąlygos, jis automatiškai vykdomas kai niekas kitas netinka.
- else dalis rašoma tik vieną kartą, visos if sąlygos pabaigoje.
- else dalies rašyti nebūtina.
- else dalyje galima:
 - išvesti klaidos pranešimą;
 - leisti kartoti veiksmą;
 - įrašyti klaidą į "log" failus;
 - atlikti kitus veiksmus, kurie nėra priskiriami jokiai tikrintai sąlygai;
 - ...

else sąlygos sintaksė

```
if (sąlyga) {  
    // ...  
} else {  
    // ...  
}
```

Pavyzdys 1

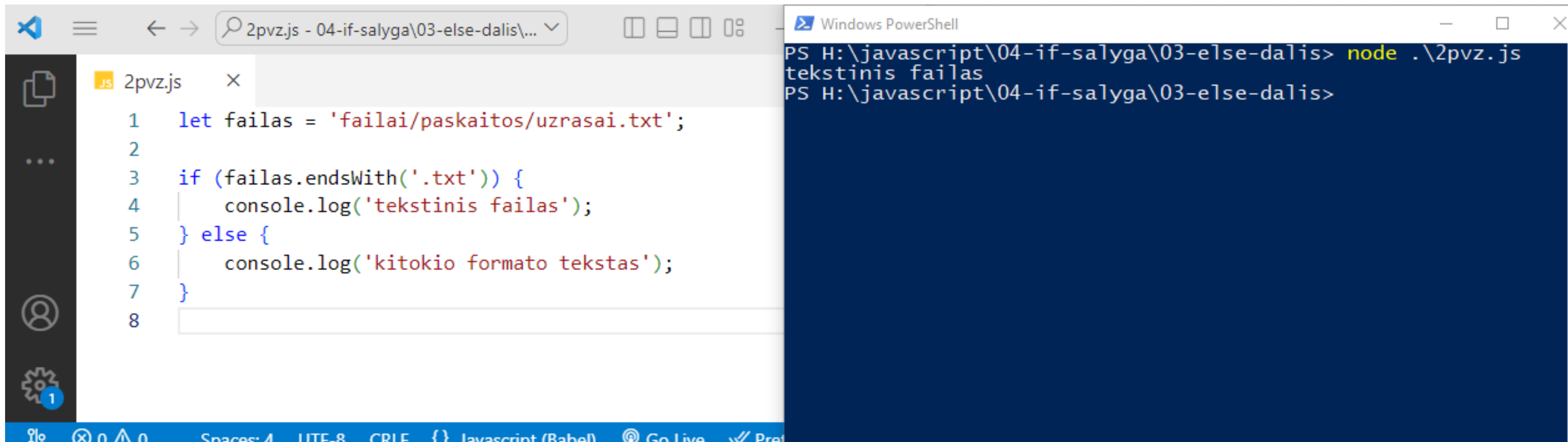


The image shows a development environment with Visual Studio Code on the left and a Windows PowerShell terminal on the right. The VS Code editor has a file named '1pvz.js' open, containing a JavaScript script. The PowerShell terminal shows the command 'node .\1pvz.js' being executed, which outputs the string 'skaicius mazesnis nei 10'.

```
1  let skaicius = 8;
2
3  if (skaicius >= 10) {
4      console.log('skaicius didesnis arba lygus 10');
5  } else {
6      console.log('skaicius mazesnis nei 10');
7  }
8
```

```
PS H:\javascript\04-if-salyga\03-else-dalis> node .\1pvz.js
skaicius mazesnis nei 10
PS H:\javascript\04-if-salyga\03-else-dalis>
```

Pavyzdys 2

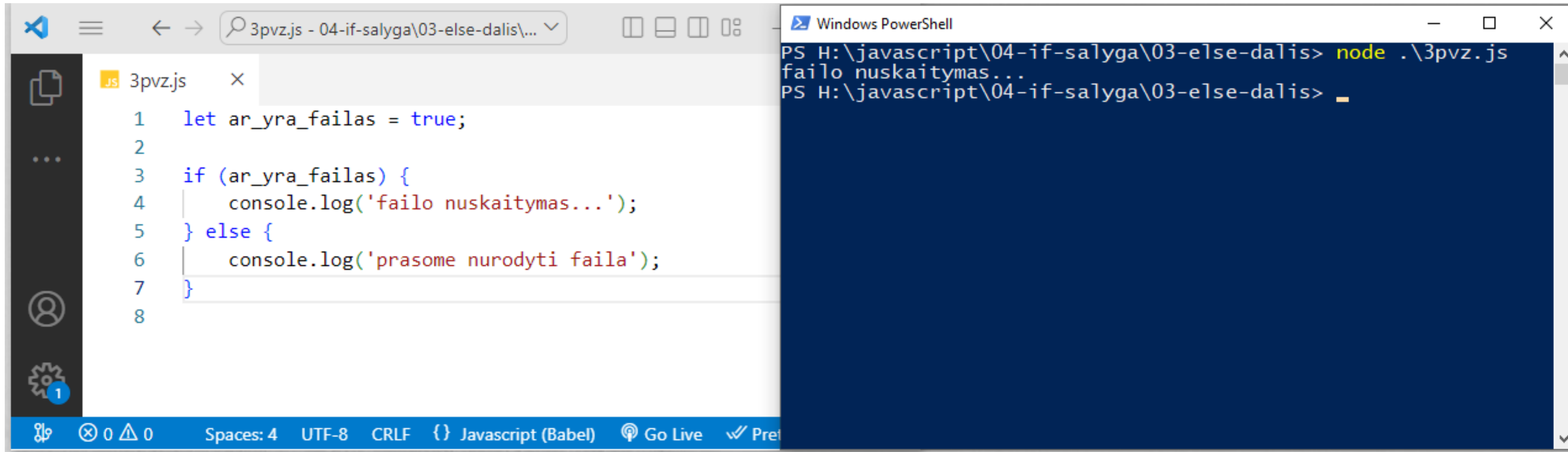


The image shows a development environment with Visual Studio Code on the left and a Windows PowerShell terminal on the right. The VS Code editor has a tab for '2pvz.js' open, showing the following JavaScript code:

```
1 let failas = 'failai/paskaitos/uzrasai.txt';
2
3 if (failas.endsWith('.txt')) {
4     console.log('tekstinis failas');
5 } else {
6     console.log('kitokio formato tekstas');
7 }
8
```

The PowerShell terminal window shows the execution of the script. The prompt is 'PS H:\javascript\04-if-salyga\03-else-dalis>'. The command 'node .\2pvz.js' has been entered, and the output 'tekstinis failas' is displayed on the line below. The prompt is then shown again on the next line.

Pavyzdys 3



The image shows a development environment with Visual Studio Code on the left and a Windows PowerShell terminal on the right. The VS Code editor has a tab for '3pvz.js' open, showing the following JavaScript code:

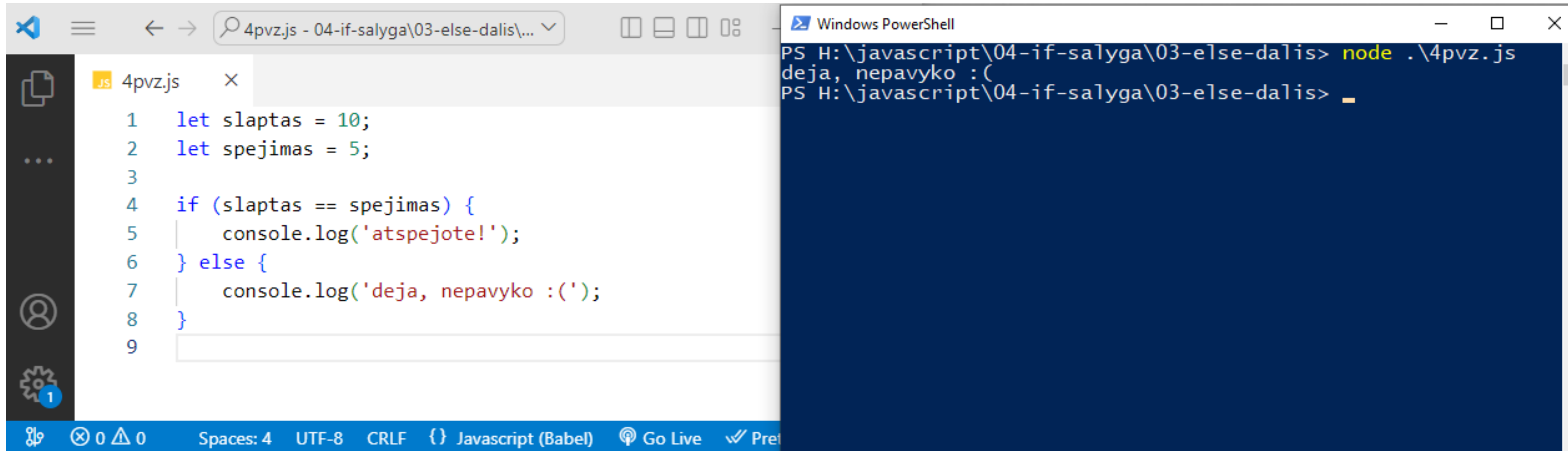
```
1 let ar_yra_failas = true;
2
3 if (ar_yra_failas) {
4     console.log('failo nuskaitymas...');
5 } else {
6     console.log('prasome nurodyti faila');
7 }
8
```

The PowerShell terminal window shows the execution of the script:

```
PS H:\javascript\04-if-salyga\03-else-dalis> node .\3pvz.js
failo nuskaitymas...
PS H:\javascript\04-if-salyga\03-else-dalis> _
```

The status bar at the bottom of VS Code indicates 'Spaces: 4', 'UTF-8', 'CRLF', and 'Javascript (Babel)'.

Pavyzdys 4



The image shows a development environment with Visual Studio Code on the left and a Windows PowerShell terminal on the right. The VS Code editor has a tab for '4pvz.js' open, showing the following JavaScript code:

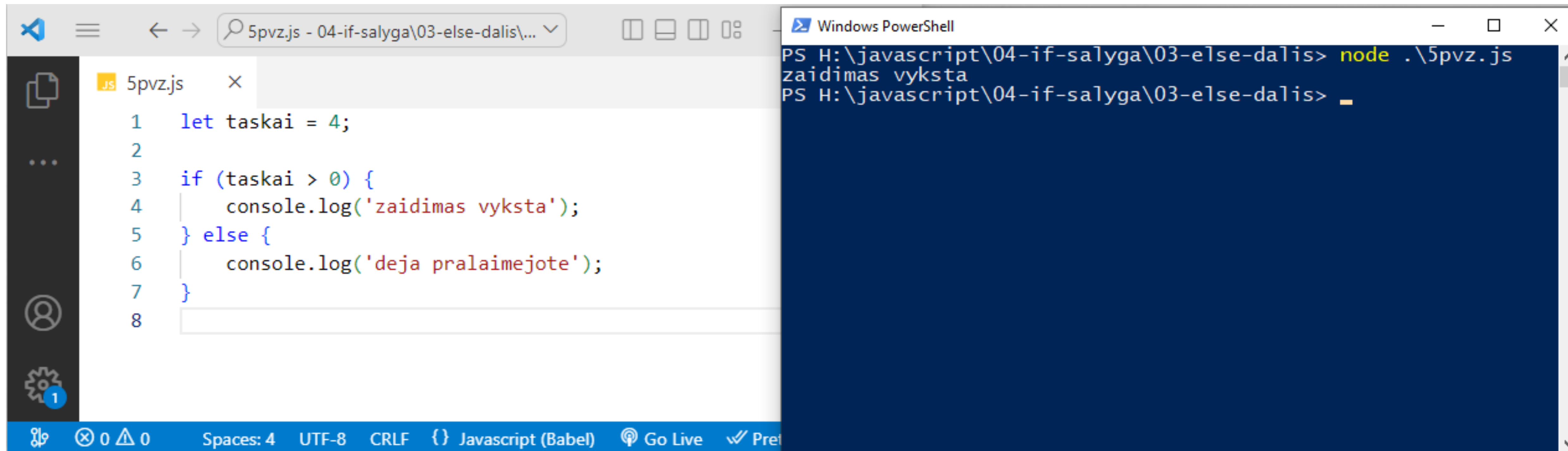
```
1 let slaptas = 10;
2 let spejimas = 5;
3
4 if (slaptas == spejimas) {
5     console.log('atspejote!');
6 } else {
7     console.log('deja, nepavyko :(');
8 }
9
```

The PowerShell terminal window shows the execution of the script:

```
PS H:\javascript\04-if-salyga\03-else-dalis> node .\4pvz.js
deja, nepavyko :(
PS H:\javascript\04-if-salyga\03-else-dalis>
```

The status bar at the bottom of VS Code indicates 'Spaces: 4', 'UTF-8', 'CRLF', and 'Javascript (Babel)'.

Pavyzdys 5



The image shows a screenshot of a development environment. On the left is the Visual Studio Code editor with a file named `5pvz.js` open. The code in the editor is as follows:

```
1 let taskai = 4;
2
3 if (taskai > 0) {
4     console.log('zaidimas vyksta');
5 } else {
6     console.log('deja pralaimejote');
7 }
8
```

On the right is a Windows PowerShell terminal window. It shows the command `node .\5pvz.js` being executed, which results in the output `zaidimas vyksta`. The terminal prompt is `PS H:\javascript\04-if-salyga\03-else-dalis>`.

Užduotys

7. Susikurkite skaičiaus kintamąjį. Patikrinkite ar jis yra lyginis, jei taip išveskite vieną informaciją, jei ne - kitą.
8. Susikurkite skaičiaus kintamąjį. Patikrinkite ar šis skaičius dalinasi iš 7, jei taip išveskite vieną tekstą, jei ne - kitą.
9. Susikurkite kintamąjį, kuriame nurodytumėte kelią iki norimo failo. Patikrinkite ar šis failas yra .js tipo, jei taip išveskite vieną tekstą, jei ne - kitą.

Patikrinimo sąlyga if

Pilna if sąlyga (su visomis
dalimis)

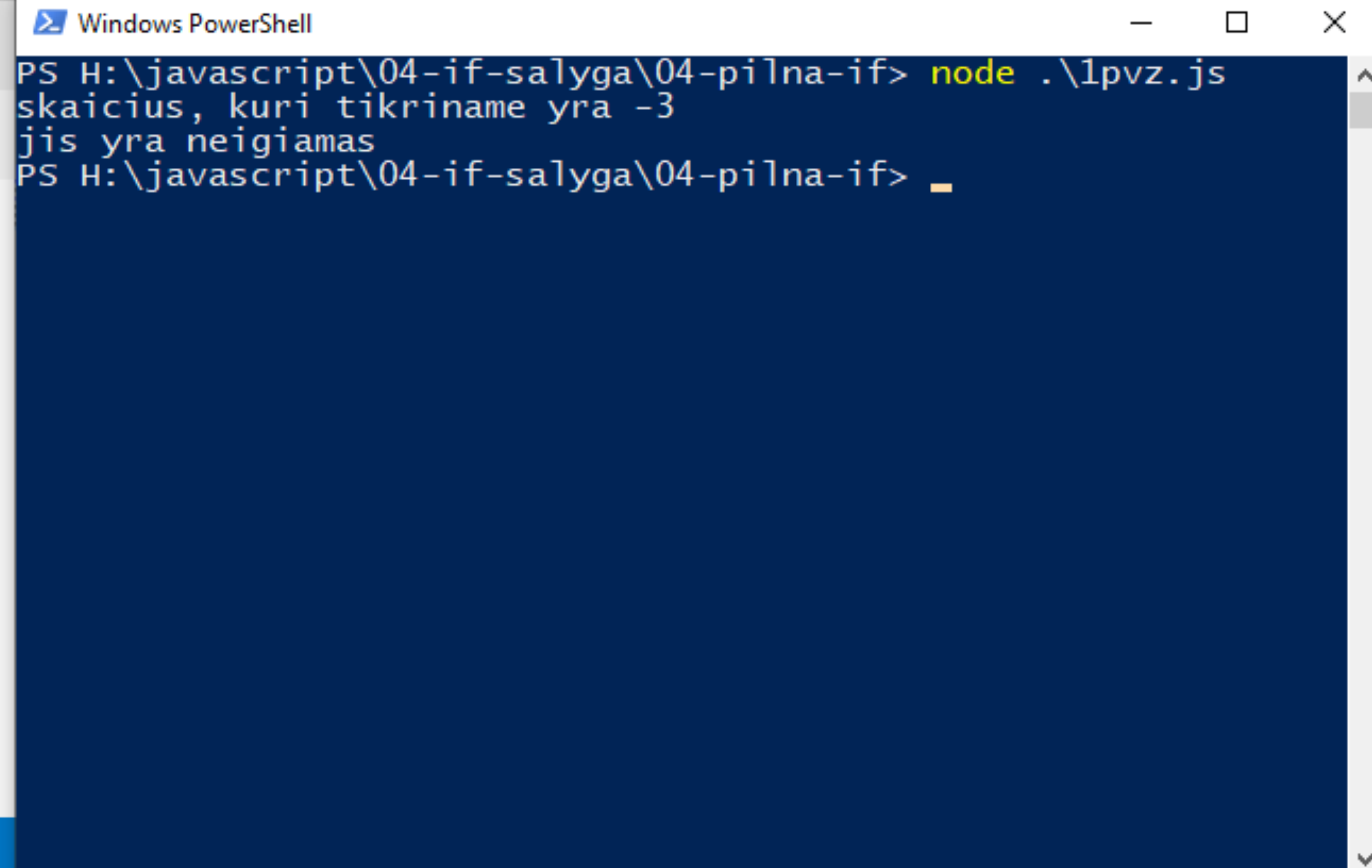
Pilnos if sąlygos sintaksė

```
if (pirma sąlyga) {  
    // ...  
} else if (antra sąlyga) {  
    // ...  
} else {  
    // ...  
}
```

Pavyzdys 1

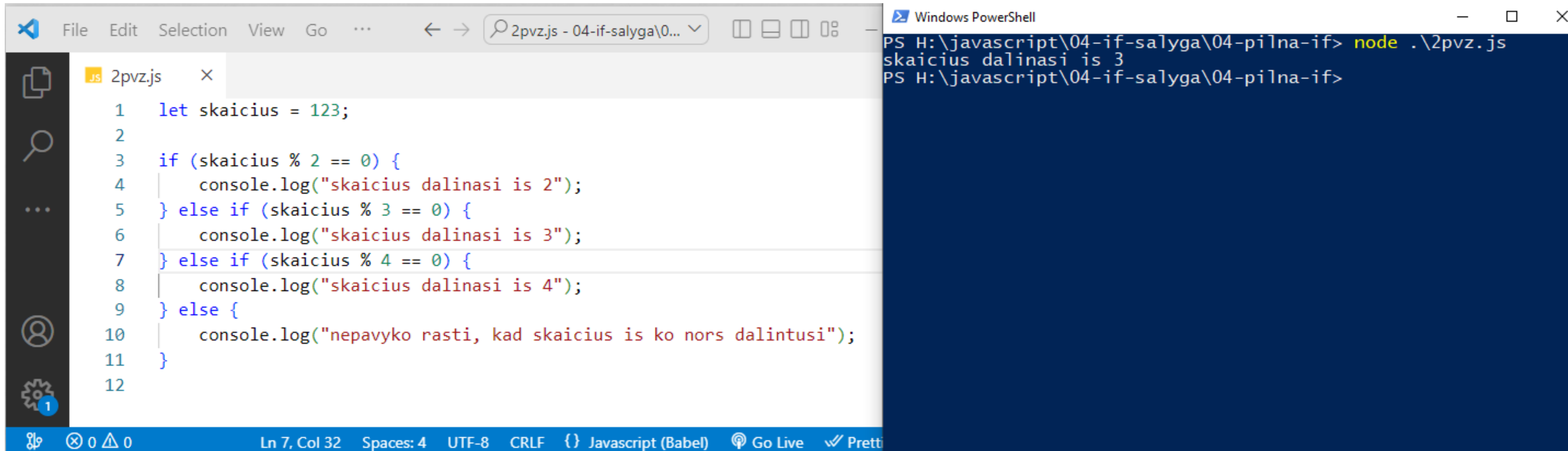


```
1 let skaicius = -3;
2
3 console.log('skaicius, kuri tikriname yra', skaicius);
4
5 if (skaicius > 0) {
6     console.log("jis yra teigiamas");
7 } else if (skaicius < 0) {
8     console.log("jis yra neigiamas");
9 } else {
10     console.log("jis yra lygus 0");
11 }
12
```



```
PS H:\javascript\04-if-salyga\04-pilna-if> node .\1pvz.js
skaicius, kuri tikriname yra -3
jis yra neigiamas
PS H:\javascript\04-if-salyga\04-pilna-if>
```


Pavyzdys 2



The image shows a development environment with a code editor and a terminal. The code editor is displaying a JavaScript file named `2pvz.js` with the following content:

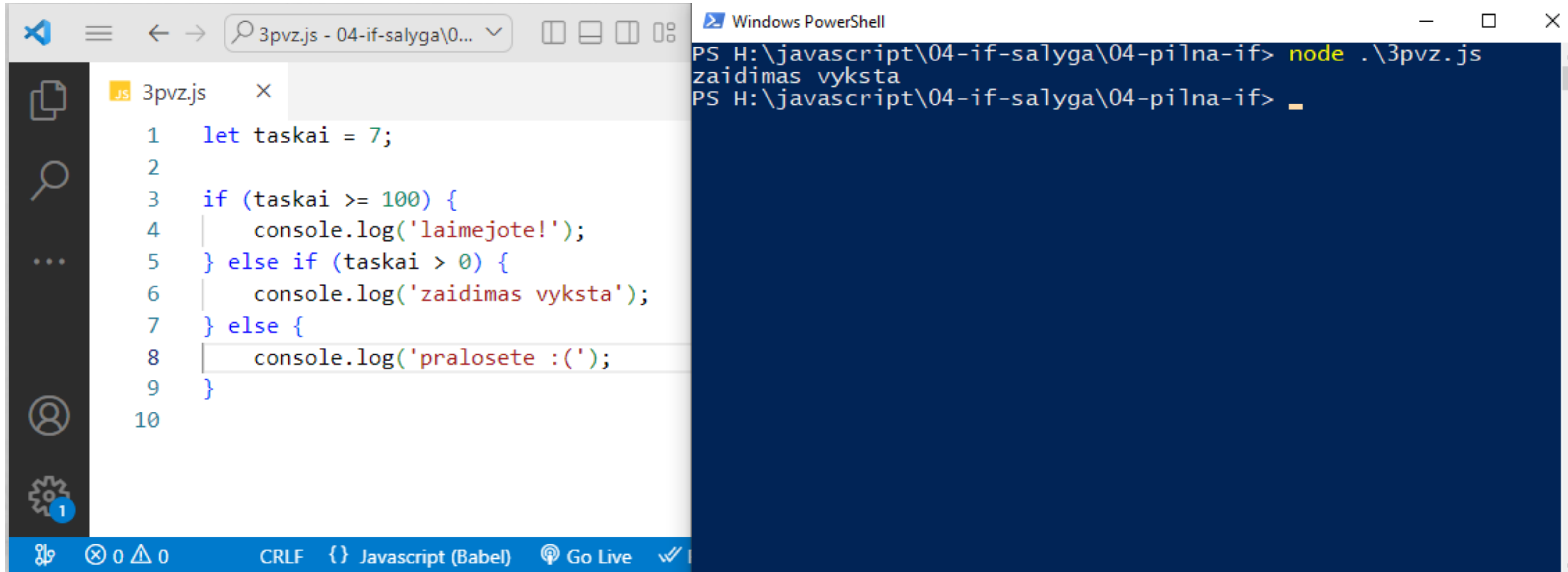
```
1 let skaicius = 123;
2
3 if (skaicius % 2 == 0) {
4     console.log("skaicius dalinasi is 2");
5 } else if (skaicius % 3 == 0) {
6     console.log("skaicius dalinasi is 3");
7 } else if (skaicius % 4 == 0) {
8     console.log("skaicius dalinasi is 4");
9 } else {
10    console.log("nepavyko rasti, kad skaicius is ko nors dalintusi");
11 }
12
```

The Windows PowerShell terminal window shows the execution of the script:

```
PS H:\javascript\04-if-salyga\04-pilna-if> node .\2pvz.js
skaicius dalinasi is 3
PS H:\javascript\04-if-salyga\04-pilna-if>
```

The status bar at the bottom of the code editor indicates the current position is Line 7, Column 32, with 4 spaces, UTF-8 encoding, CRLF line endings, and the JavaScript (Babel) language mode.

Pavyzdys 3



The image shows a side-by-side comparison of a code editor and a terminal window. On the left, the Visual Studio Code editor displays a file named `3pvz.js` with the following JavaScript code:

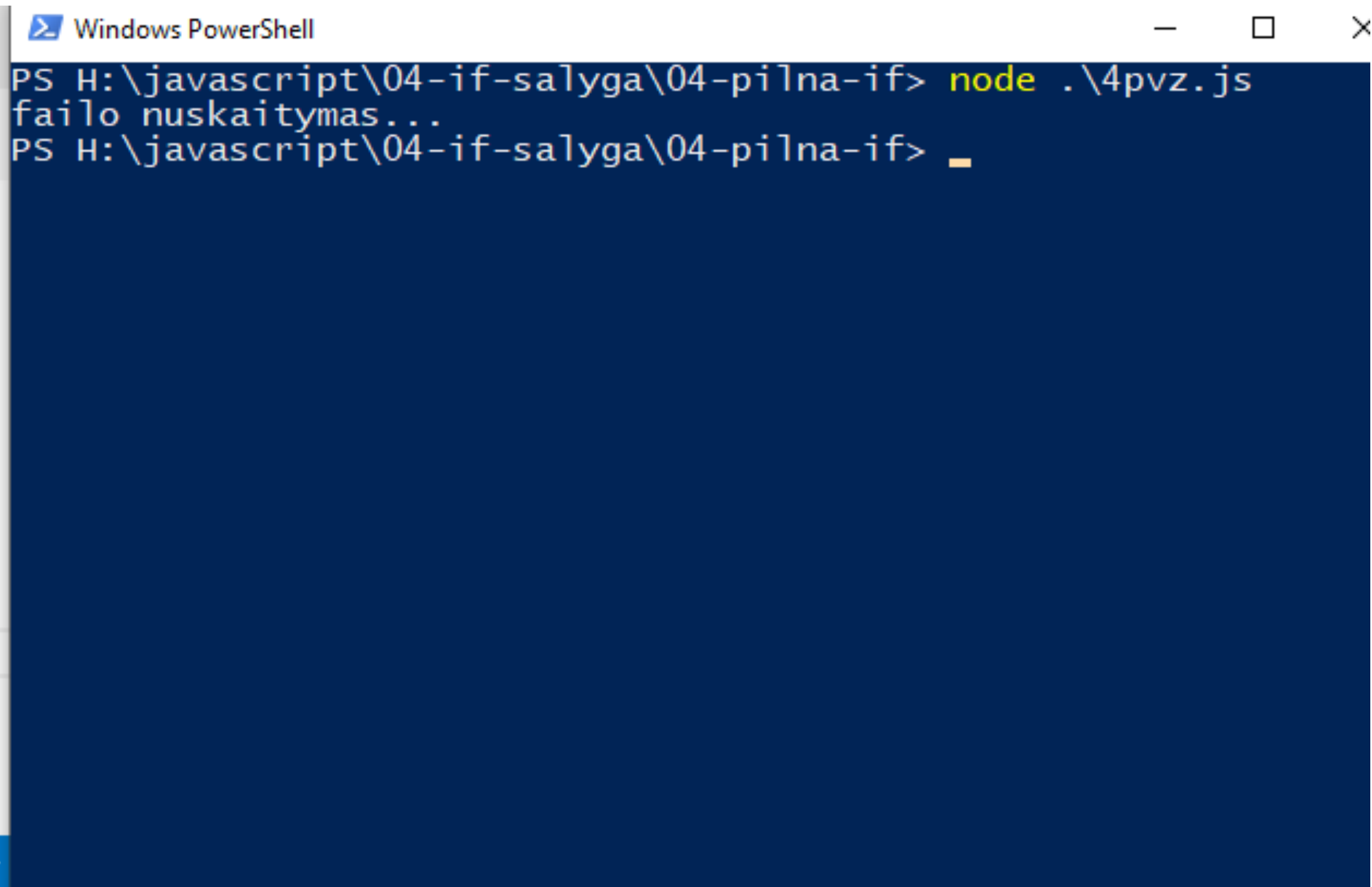
```
1 let taskai = 7;  
2  
3 if (taskai >= 100) {  
4     console.log('laimejote!');  
5 } else if (taskai > 0) {  
6     console.log('zaidimas vyksta');  
7 } else {  
8     console.log('pralosete :(');  
9 }  
10
```

On the right, a Windows PowerShell terminal window shows the execution of the script. The prompt is `PS H:\javascript\04-if-salyga\04-pilna-if>`. The command `node .\3pvz.js` has been entered, and the output is `zaidimas vyksta`. The prompt is now `PS H:\javascript\04-if-salyga\04-pilna-if>` with a cursor.

Pavyzdys 4

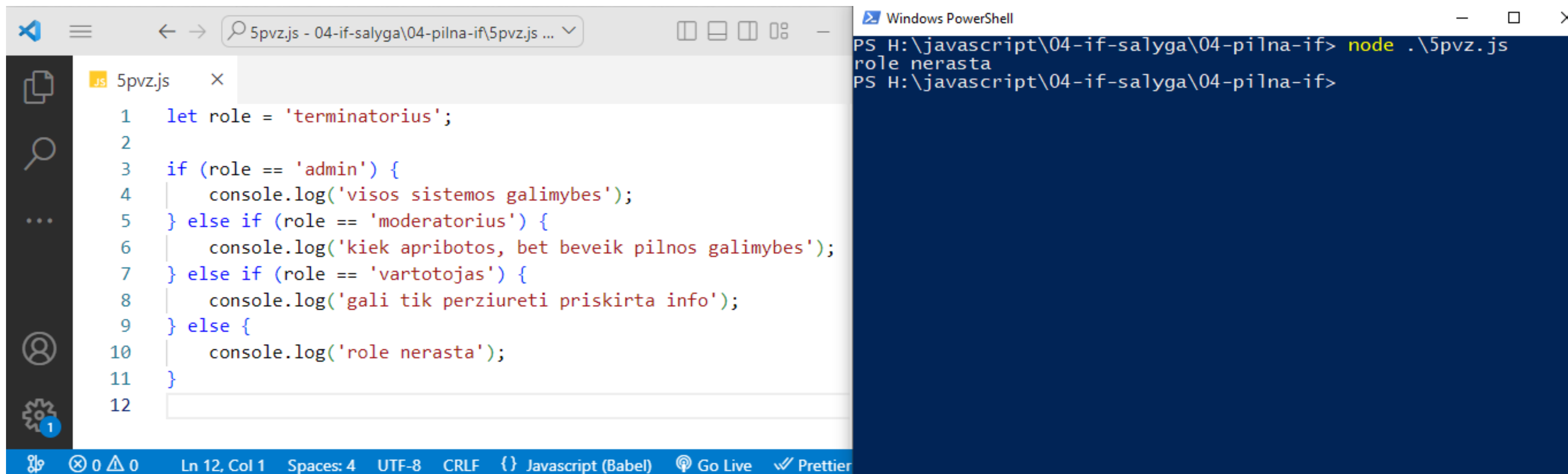


```
1 let failas = 'uzrasai/2022-10-14.txt';
2
3 if (failas == undefined) {
4     console.log('prasome nurodyti faila');
5 } else if (failas.endsWith('.txt')) {
6     console.log('failo nuskaitymas...');
7 } else {
8     console.log('nurodytas failas netinkamo formato');
9 }
10
```



```
PS H:\javascript\04-if-salyga\04-pilna-if> node .\4pvz.js
failo nuskaitymas...
PS H:\javascript\04-if-salyga\04-pilna-if>
```

Pavyzdys 5



The image shows a Visual Studio Code editor window on the left and a Windows PowerShell terminal on the right. The editor displays a JavaScript file named `5pvz.js` with the following code:

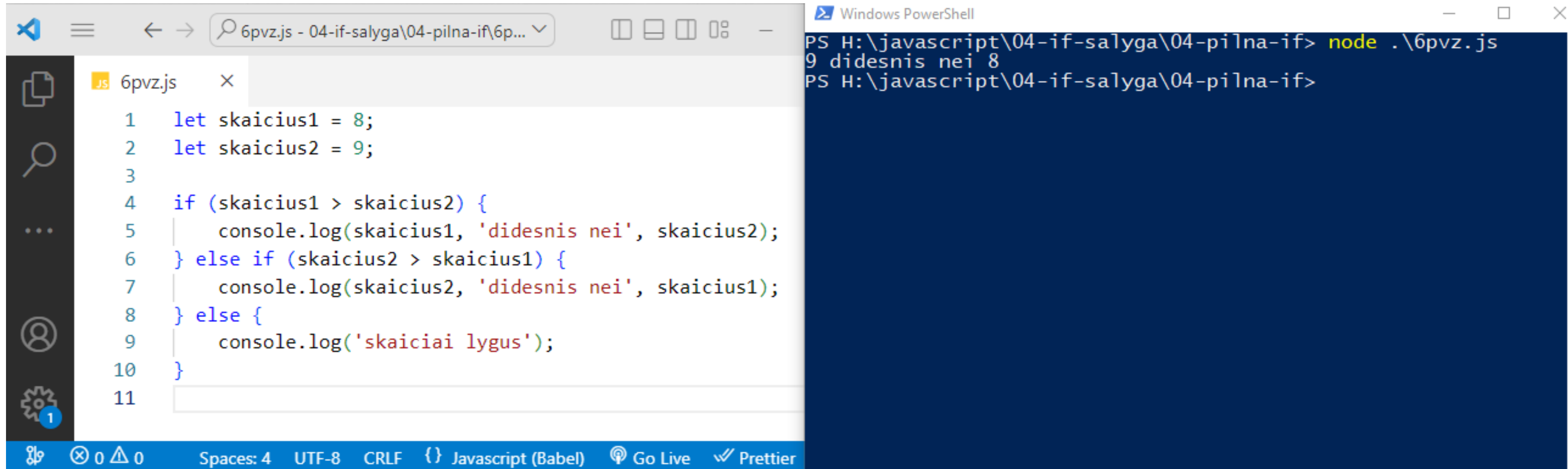
```
1 let role = 'terminatorius';
2
3 if (role == 'admin') {
4   console.log('visos sistemos galimybes');
5 } else if (role == 'moderatorius') {
6   console.log('kiek apribotos, bet beveik pilnos galimybes');
7 } else if (role == 'vartotojas') {
8   console.log('gali tik perziureti priskirta info');
9 } else {
10  console.log('role nerasta');
11 }
12
```

The PowerShell terminal on the right shows the command `node .\5pvz.js` being executed, which results in the output `role nerasta`.

```
PS H:\javascript\04-if-salyga\04-pilna-if> node .\5pvz.js
role nerasta
PS H:\javascript\04-if-salyga\04-pilna-if>
```

The status bar at the bottom of the VS Code window indicates the current position is `Ln 12, Col 1`, the file encoding is `UTF-8`, and the line endings are `CRLF`. The active language is `Javascript (Babel)`, and the `Prettier` formatter is enabled.

Pavyzdys 6



The image shows a development environment with Visual Studio Code on the left and a Windows PowerShell terminal on the right. The VS Code editor has a tab for '6pvz.js' open, showing a JavaScript script. The script defines two variables, 'skaicius1' and 'skaicius2', and uses an if-else statement to compare them. The PowerShell terminal shows the command 'node .\6pvz.js' being executed, which results in the output '9 didesnis nei 8'.

```
1 let skaicius1 = 8;
2 let skaicius2 = 9;
3
4 if (skaicius1 > skaicius2) {
5     console.log(skaicius1, 'didesnis nei', skaicius2);
6 } else if (skaicius2 > skaicius1) {
7     console.log(skaicius2, 'didesnis nei', skaicius1);
8 } else {
9     console.log('skaiciai lygus');
10 }
11
```

```
PS H:\javascript\04-if-salyga\04-pilna-if> node .\6pvz.js
9 didesnis nei 8
PS H:\javascript\04-if-salyga\04-pilna-if>
```


Užduotys

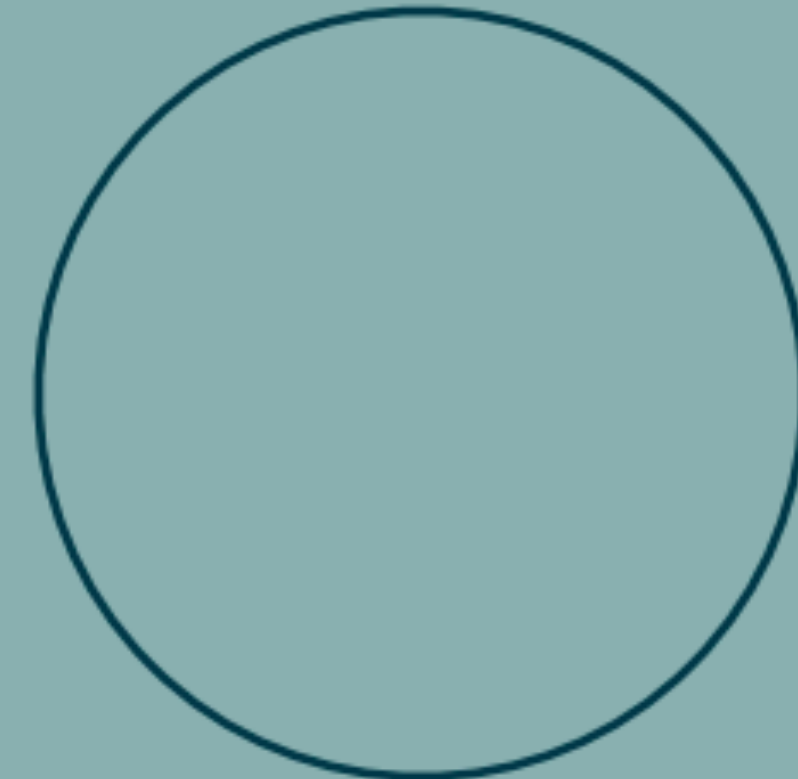
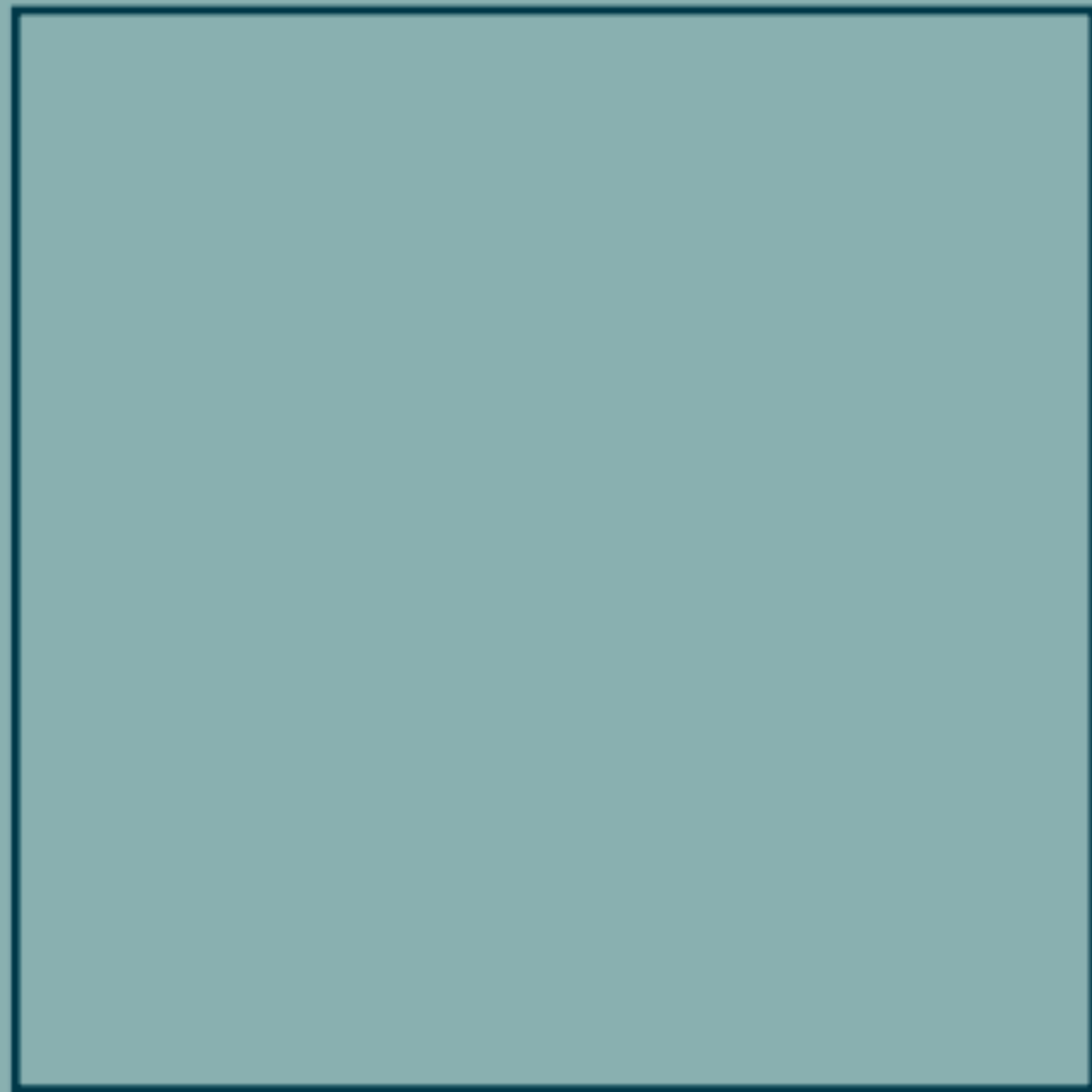
10. Susikurkite skaičiui saugoti skirtą kintamąjį. Tikrinkite (naudojant visas if sąlygos dalis):

1. Ar skaičius yra lyginis?
2. Ar dalinasi iš 5?
3. Ar skaičius lygus 3?
4. Jeigu nieko nepavyko rasti, išveskite klaidos pranešimą.

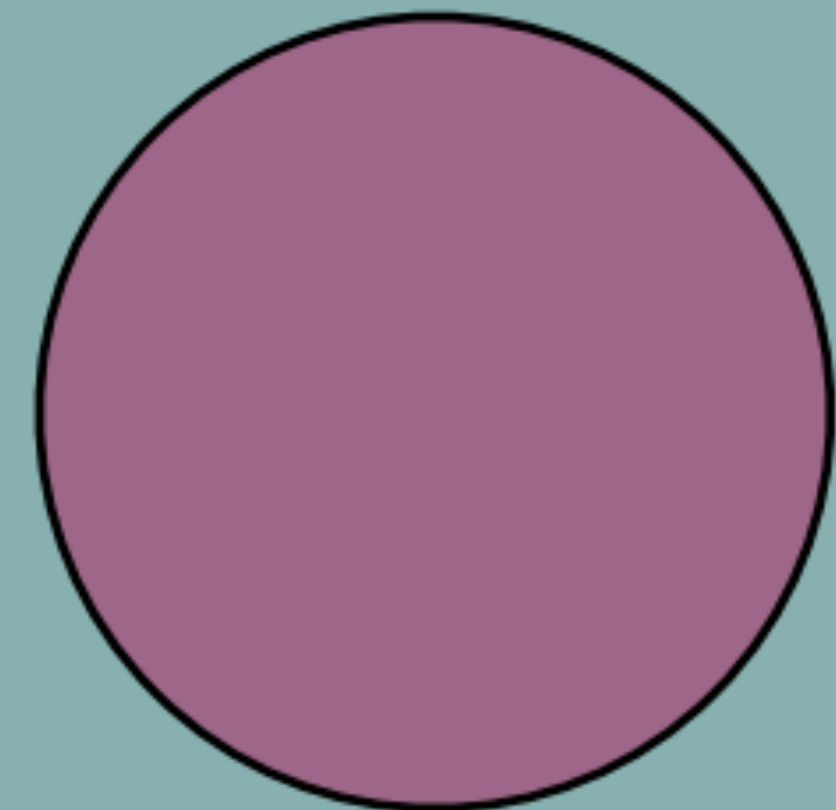
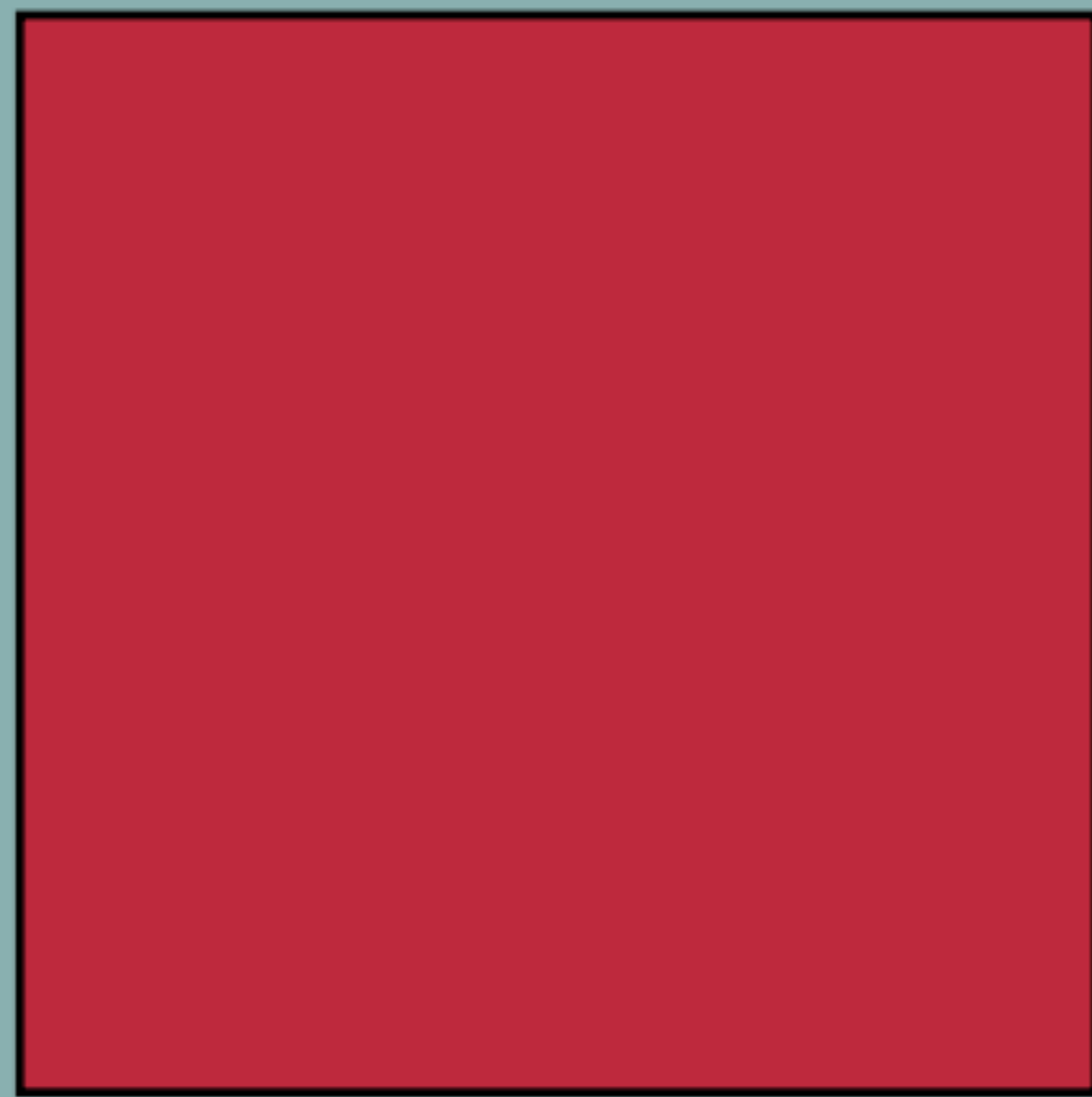
11. Susikurkite tris skaičius. Tikrinkite (naudojant visas if sąlygos dalis):

1. Ar pirmi du skaičiai lygūs?
2. Ar pirmas ir trečias skaičiai lygūs?
3. Ar trečias skaičius didesnis už pirmą?
4. Ar antras skaičius lygus dvigubai trečio skaičiaus reikšmei?
5. Ar pirmas skaičius dalinasi iš 3?
6. Jei nieko nepavyko rasti, išveskite klaidos pranešimą.

Turime du skirtingų dydžių kvadratus ir vieną apskritimą



Didelį kvadratą norime nudažyti raudonai, mažą kvadratą - mėlynai, o apskritimą - violetine spalva



Pseudo kodas

```
if (*kvadratas*) {  
    if (didelisKvadratas) {  
        *nuspelvink raudonai*  
    } else {  
        *kadangi tai ne didelis, tuomet tai mažas kvadratas, nuspelvink mėlynai.*  
    }  
} else {  
    *kadangi tai ne kvadratas, tuomet tai apskritimas, nuspelvink violetine.*  
}
```

Patikrinimo sąlyga if

Loginiai operatoriai

Apie loginius operatorius

- Loginiai operatoriai naudojami norint patikrinti kelias sąlygas vienu metu (o ne iš eilės kaip tai vyktų su else if). Pavyzdžiui:
 - Ar vartotojas prisijungęs IR ar vartotojas turi atitinkamą rolę?
 - Ar failas egzistuoja failų sistemoje ARBA yra nustatytas atsarginis failas?
 - Ar studentas turi užtektinai pinigų ant bilieto IR turi galiojantį LSP?
 - Ar skaičius patenka į režius (yra didesnis už pradžią IR yra mažesnis už pabaigą)?
 - Ar prie produkto yra įrašyta kaina ARBA produktas pažymėtas kaip nemokamas?

Loginiai operatoriai

Operator	Description	Example
&&	and	(x < 10 && y > 1) is true
	or	(x == 5 y == 5) is false
!	not	!(x == y) is true

Operatorius && (ir)

<i>X</i>	<i>Y</i>	<i>X & Y</i>
0	0	0
0	1	0
1	0	0
1	1	1

false && false = false;

false && true = false;

true && false = false;

true && true = true;

Operatorius || (arba)

X	Y	X V Y
0	0	0
0	1	1
1	0	1
1	1	1

false || false = false;

false || true = true;

true || false = true;

true || true = true;

Operatorius ! (ne)

`!true = false;`

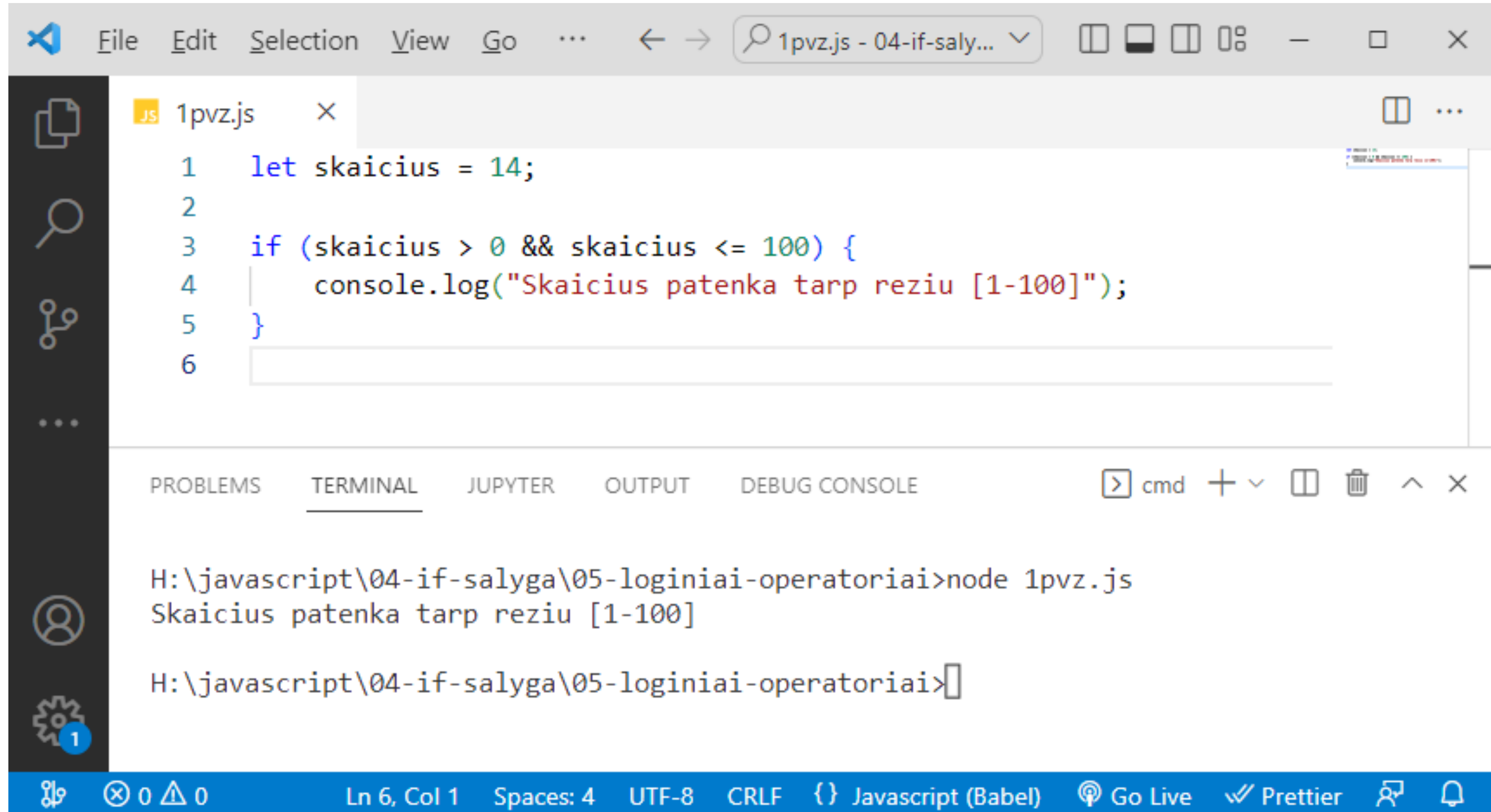
`!false = true;`

x	$\neg x$
0	1
1	0

Užduotis žodžiu

- $(10 > 9) \ \&\& \ (9 > 10) = ???$
- $(10 > 9) \ || \ (9 > 10) = ???$
- $!true = ???$
- $(10 > 9) \ \&\& \ (! (9 > 10)) = ???$

Pavyzdys 1



The image shows a screenshot of the Visual Studio Code editor interface. The top menu bar includes File, Edit, Selection, View, Go, and a search bar. The search bar contains the text "1pvz.js - 04-if-saly...". The editor window displays a JavaScript file named "1pvz.js" with the following code:

```
1 let skaicius = 14;
2
3 if (skaicius > 0 && skaicius <= 100) {
4     console.log("Skaicius patenka tarp reziu [1-100]");
5 }
6
```

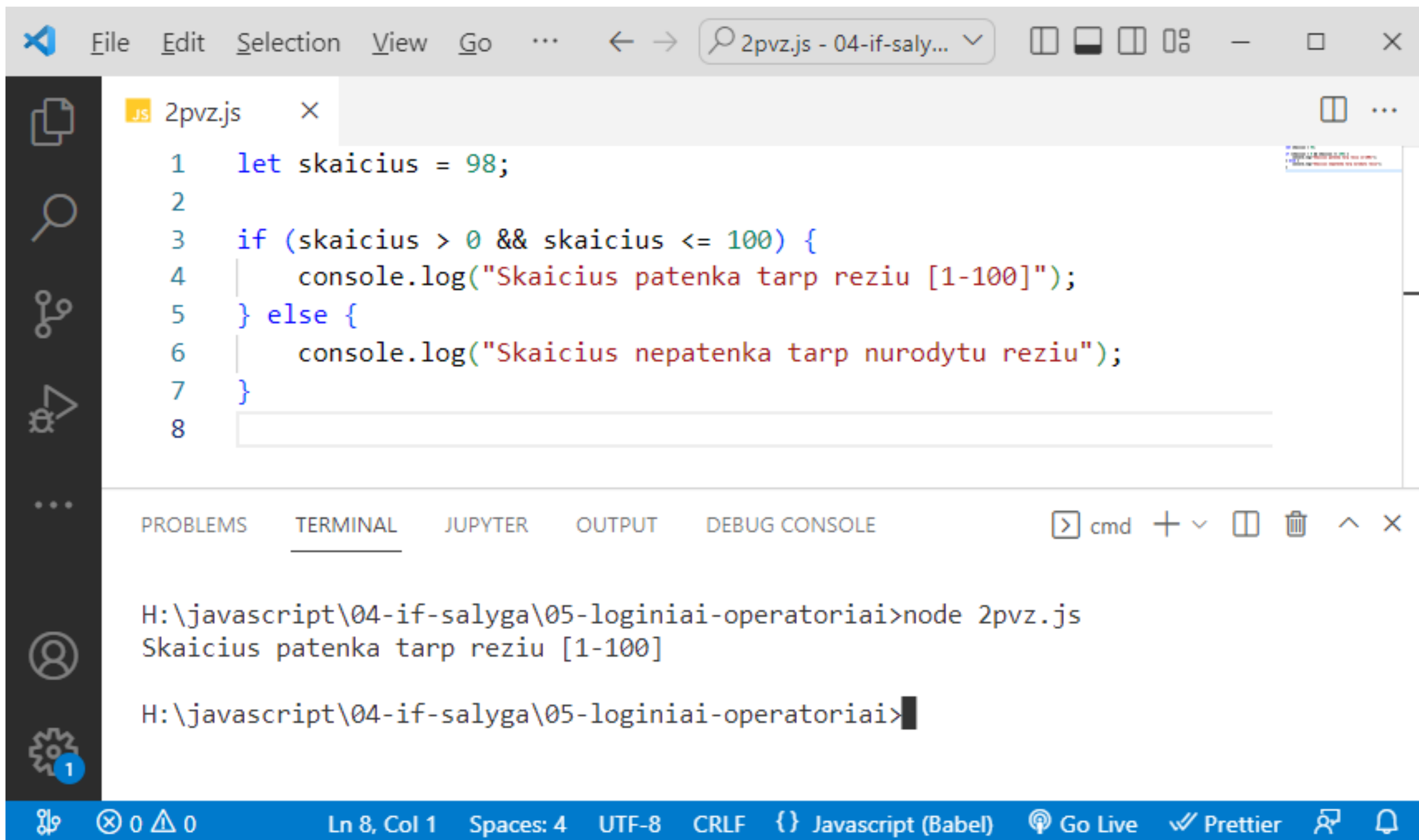
The bottom panel shows the TERMINAL tab, which contains the following output:

```
H:\javascript\04-if-salyga\05-loginiai-operatoriai>node 1pvz.js
Skaicius patenka tarp reziu [1-100]

H:\javascript\04-if-salyga\05-loginiai-operatoriai>
```

The status bar at the bottom indicates the current line and column (Ln 6, Col 1), the encoding (UTF-8), the line ending (CRLF), the language (Javascript (Babel)), and the formatting (Go Live, Prettier).

Pavyzdys 2



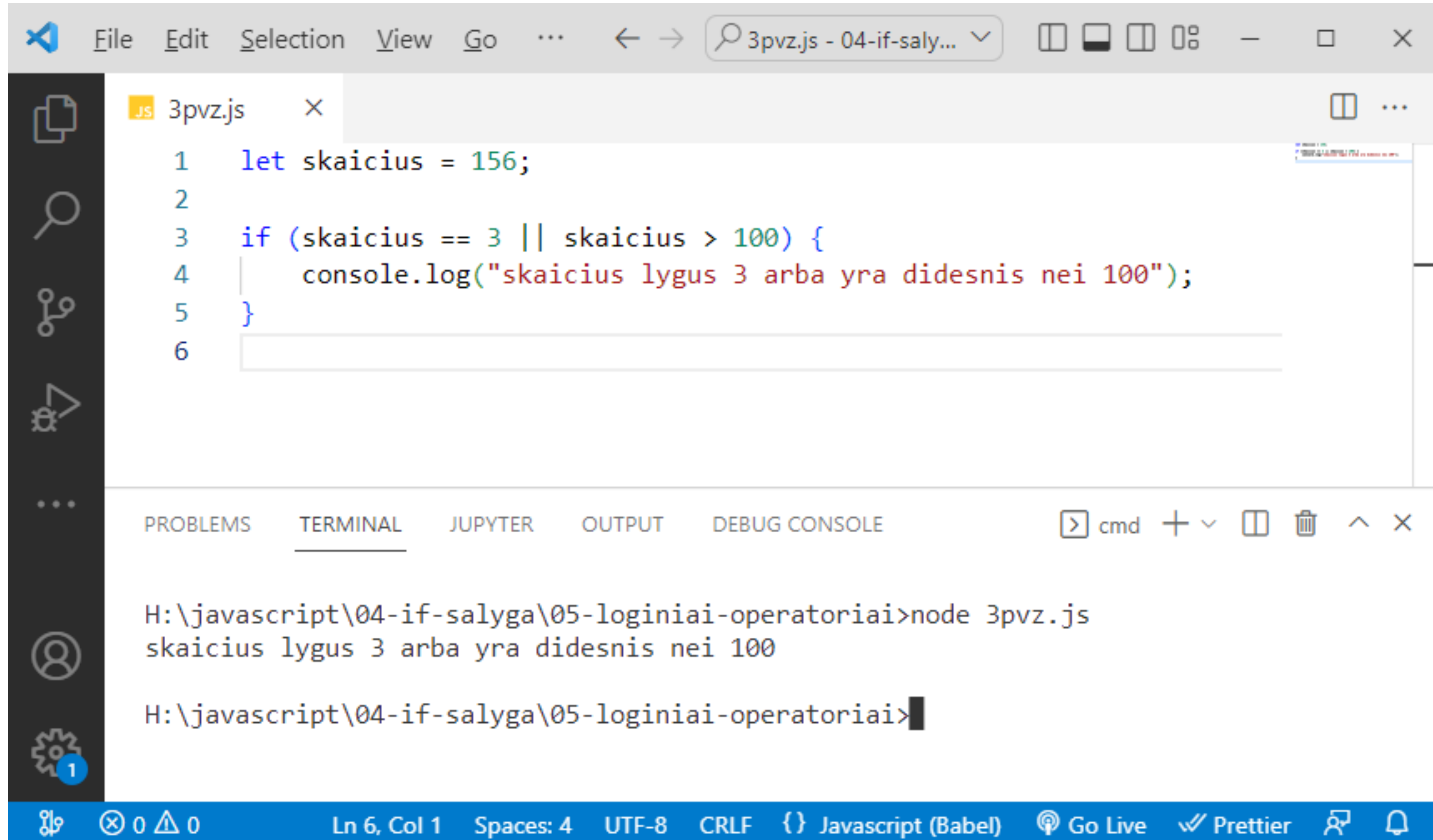
The image shows a Visual Studio Code editor window with a file named `2pvz.js` open. The code in the file is as follows:

```
1 let skaicius = 98;
2
3 if (skaicius > 0 && skaicius <= 100) {
4     console.log("Skaicius patenka tarp reziu [1-100]");
5 } else {
6     console.log("Skaicius nepatenka tarp nurodytu reziu");
7 }
8
```

Below the editor, the **TERMINAL** tab is active, showing the command `node 2pvz.js` being executed in the directory `H:\javascript\04-if-salyga\05-loginiai-operatoriai`. The output of the command is `Skaicius patenka tarp reziu [1-100]`.

The status bar at the bottom indicates the current line and column as **Ln 8, Col 1**, and the file encoding as **UTF-8**. Other status bar items include **Spaces: 4**, **CRLF**, **{}**, **Javascript (Babel)**, **Go Live**, **Prettier**, and a notification icon.

Pavyzdys 3



The screenshot shows the Visual Studio Code interface. The editor window displays a JavaScript file named `3pvz.js` with the following code:

```
1 let skaicius = 156;
2
3 if (skaicius == 3 || skaicius > 100) {
4     console.log("skaicius lygus 3 arba yra didesnis nei 100");
5 }
6
```

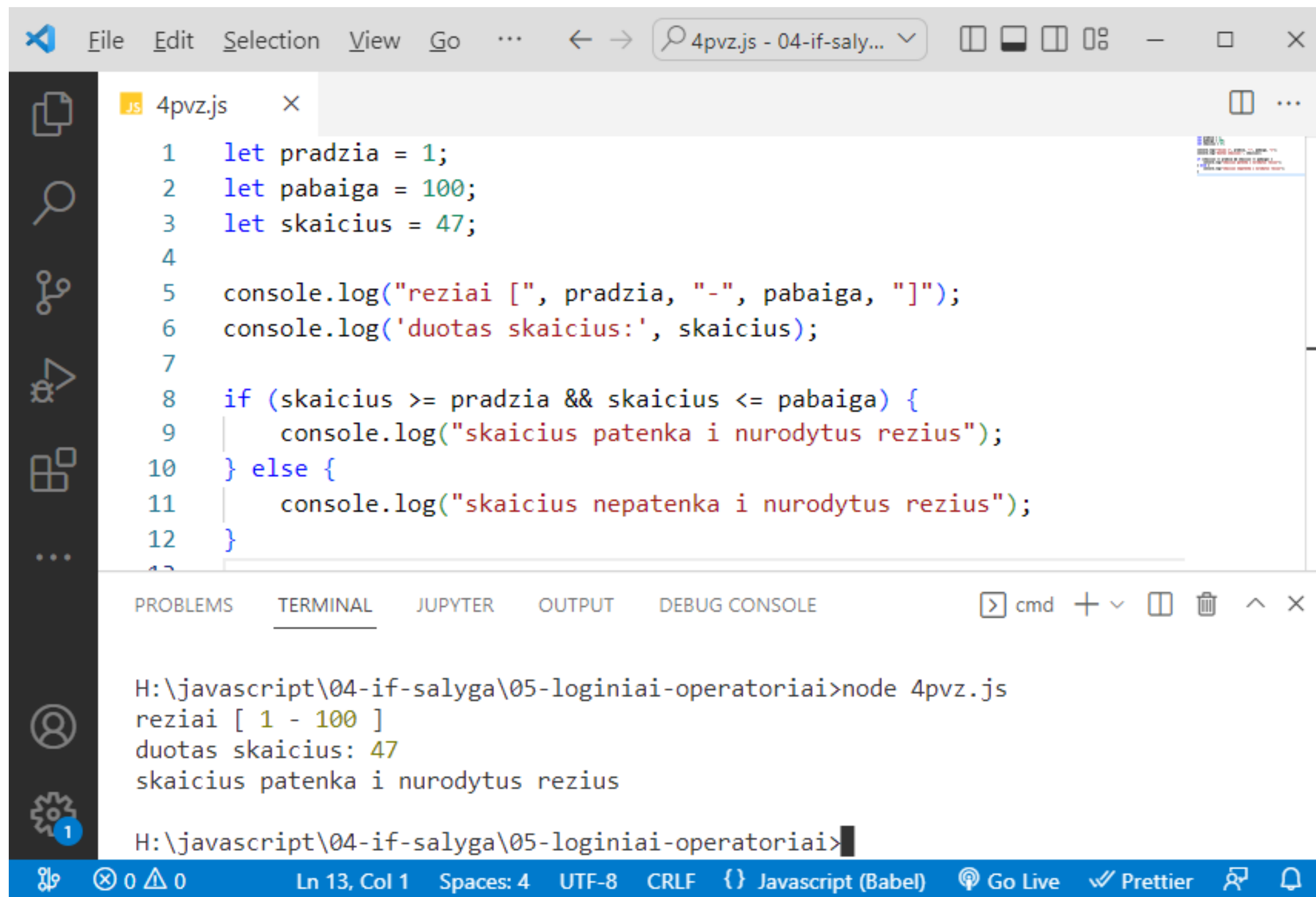
The bottom panel shows the **TERMINAL** tab with the following output:

```
H:\javascript\04-if-salyga\05-loginiai-operatoriai>node 3pvz.js
skaicius lygus 3 arba yra didesnis nei 100

H:\javascript\04-if-salyga\05-loginiai-operatoriai>
```

The status bar at the bottom indicates the current line and column as **Ln 6, Col 1**, and the file encoding as **UTF-8**. Other status bar items include **Spaces: 4**, **CRLF**, **{}**, **Javascript (Babel)**, **Go Live**, **Prettier**, and a **1** icon in the bottom left corner.

Pavyzdys 4



The image shows a screenshot of the Visual Studio Code (VS Code) editor interface. The top menu bar includes File, Edit, Selection, View, Go, and a search bar. The active file is 4pvz.js, located in the directory 04-if-salyga. The code in the editor is as follows:

```
1 let pradzia = 1;
2 let pabaiga = 100;
3 let skaicius = 47;
4
5 console.log("reziai [", pradzia, "-", pabaiga, "]");
6 console.log('duotas skaicius:', skaicius);
7
8 if (skaicius >= pradzia && skaicius <= pabaiga) {
9     console.log("skaicius patenka i nurodytus rezius");
10 } else {
11     console.log("skaicius nepatenka i nurodytus rezius");
12 }
```

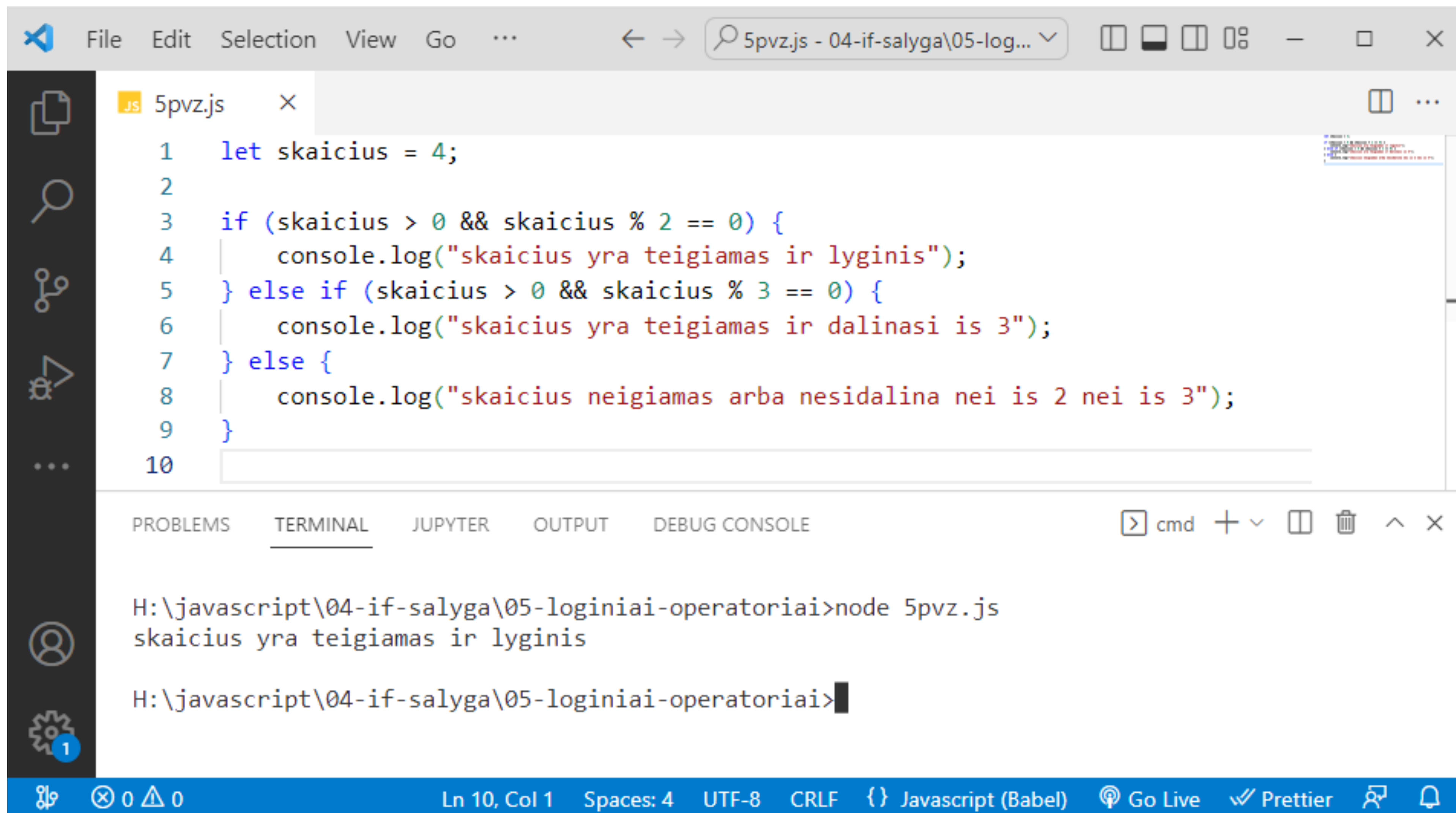
Below the editor, the TERMINAL panel is active, showing the command prompt and the output of running the script:

```
H:\javascript\04-if-salyga\05-loginiai-operatoriai>node 4pvz.js
reziai [ 1 - 100 ]
duotas skaicius: 47
skaicius patenka i nurodytus rezius

H:\javascript\04-if-salyga\05-loginiai-operatoriai>
```

The status bar at the bottom indicates the current line and column (Ln 13, Col 1), the number of spaces (4), the encoding (UTF-8), the line ending (CRLF), the language (Javascript (Babel)), and the presence of extensions like Go Live and Prettier.

Pavyzdys 5



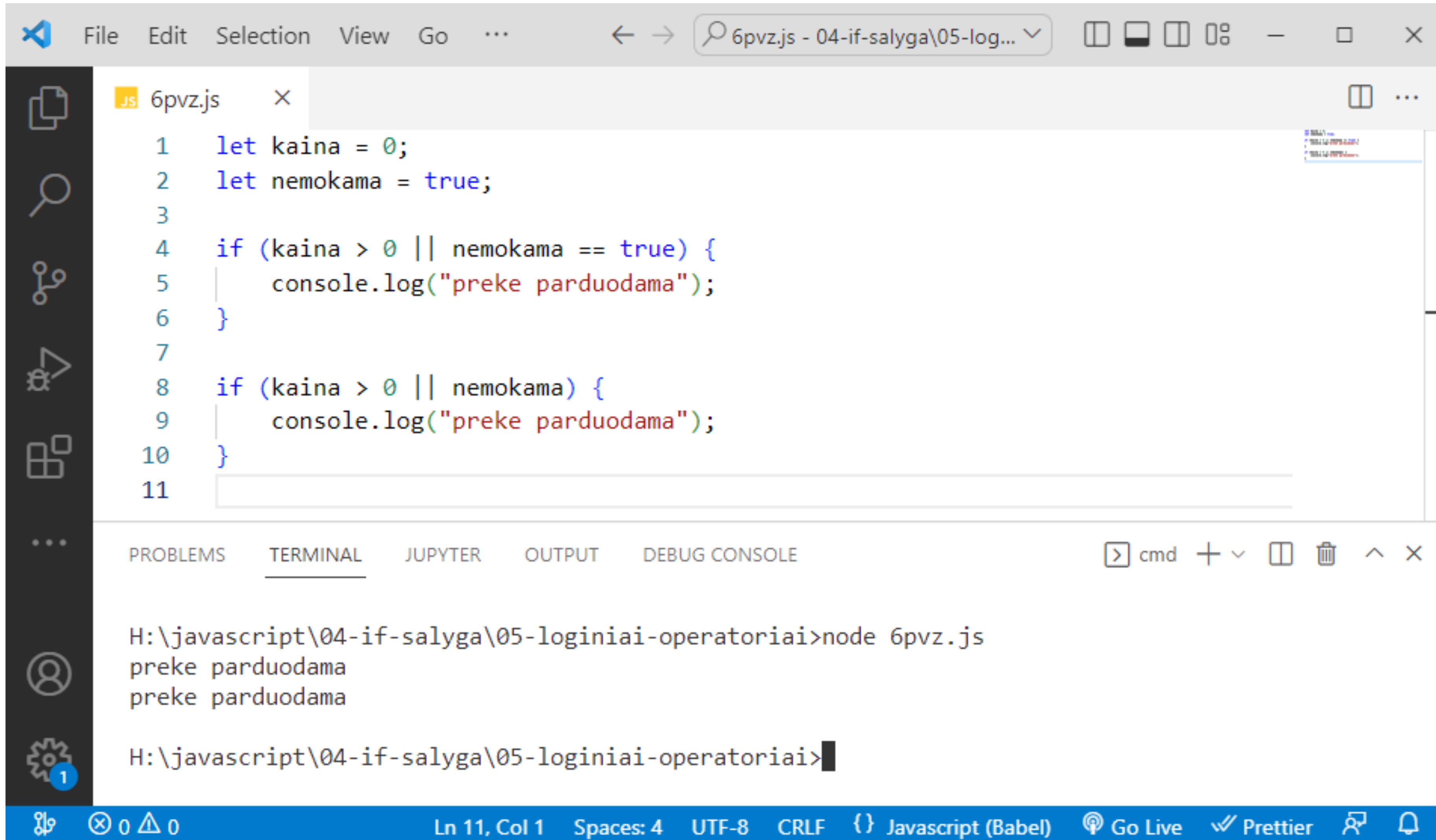
The screenshot shows the Visual Studio Code interface. The editor window displays a JavaScript file named `5pvz.js` with the following code:

```
1 let skaicius = 4;
2
3 if (skaicius > 0 && skaicius % 2 == 0) {
4     console.log("skaicius yra teigiamas ir lyginis");
5 } else if (skaicius > 0 && skaicius % 3 == 0) {
6     console.log("skaicius yra teigiamas ir dalinasi is 3");
7 } else {
8     console.log("skaicius neigiamas arba nesidalina nei is 2 nei is 3");
9 }
10
```

The terminal window at the bottom shows the command `node 5pvz.js` being executed, resulting in the output `skaicius yra teigiamas ir lyginis`. The terminal prompt is `H:\javascript\04-if-salyga\05-loginiai-operatoriai>`.

The status bar at the bottom indicates the file is `5pvz.js`, line 10, column 1, with 4 spaces, UTF-8 encoding, CRLF line endings, and the Babel JavaScript engine. It also shows the Go Live extension and Prettier formatting.

Pavyzdys 6



The image shows a screenshot of the Visual Studio Code editor interface. The top menu bar includes File, Edit, Selection, View, Go, and a search icon. The title bar shows the file name '6pvz.js - 04-if-salyga\05-log...'. The editor window displays the following JavaScript code:

```
1 let kaina = 0;
2 let nemokama = true;
3
4 if (kaina > 0 || nemokama == true) {
5     console.log("preke parduodama");
6 }
7
8 if (kaina > 0 || nemokama) {
9     console.log("preke parduodama");
10 }
11
```

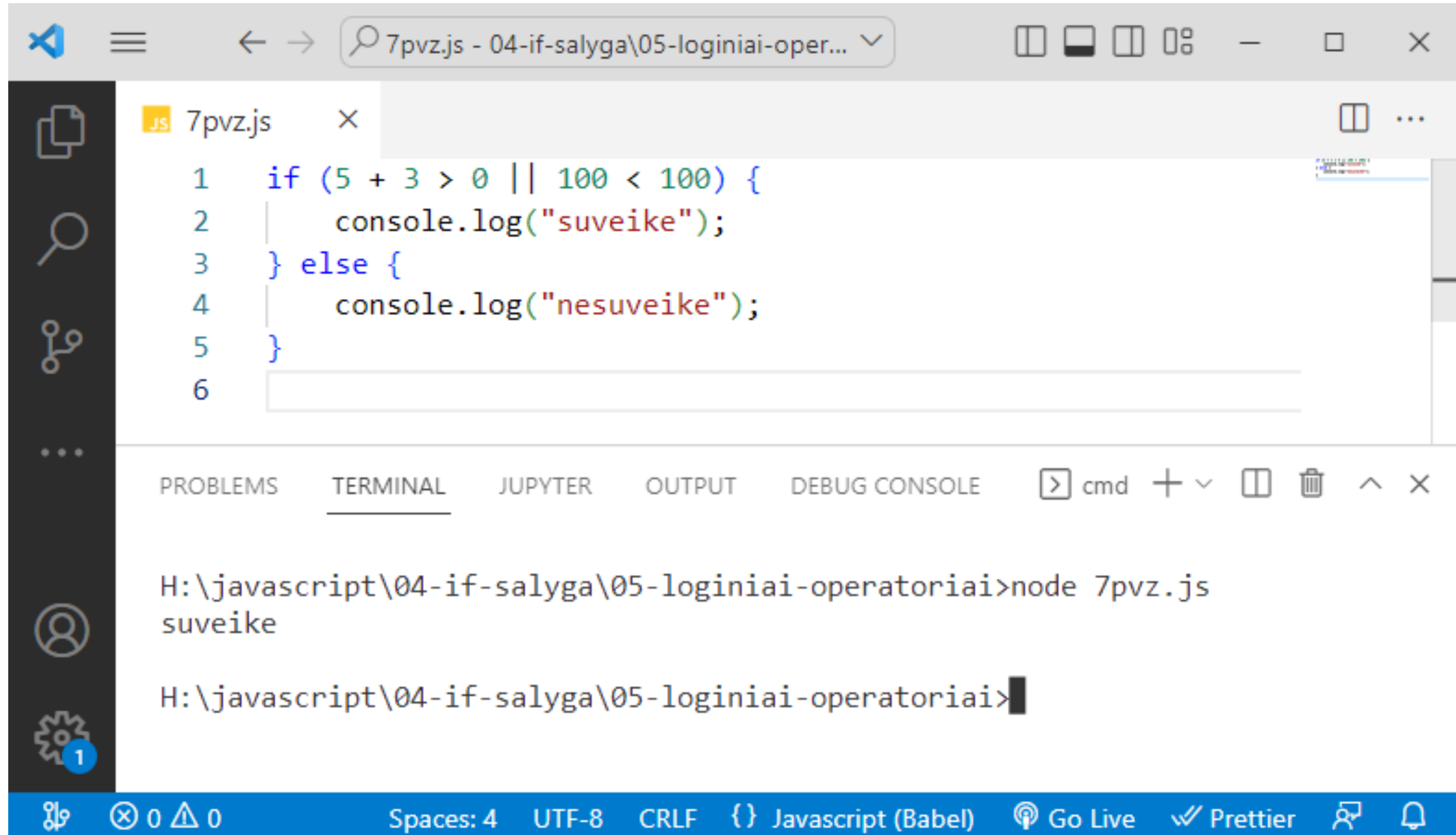
The bottom panel shows the 'TERMINAL' tab with the following output:

```
H:\javascript\04-if-salyga\05-loginiai-operatoriai>node 6pvz.js
preke parduodama
preke parduodama

H:\javascript\04-if-salyga\05-loginiai-operatoriai>
```

The status bar at the bottom indicates the current line and column (Ln 11, Col 1), the encoding (UTF-8), the line ending (CRLF), and the active language (Javascript (Babel)). It also shows icons for Go Live, Prettier, and other extensions.

Pavyzdys 7



The image shows a screenshot of the Visual Studio Code editor interface. The top bar displays the file name "7pvz.js - 04-if-salyga\05-loginiai-oper...". The editor window shows the following JavaScript code:


```
1  if (5 + 3 > 0 || 100 < 100) {  
2    console.log("suveike");  
3  } else {  
4    console.log("nesuveike");  
5  }  
6
```

Below the editor, the "TERMINAL" tab is active, showing the command prompt output:

```
H:\javascript\04-if-salyga\05-loginiai-operatoriai>node 7pvz.js  
suveike  
  
H:\javascript\04-if-salyga\05-loginiai-operatoriai>
```

The status bar at the bottom indicates the file is using "Spaces: 4", "UTF-8" encoding, "CRLF" line endings, and the "Javascript (Babel)" language mode. Other icons for "Go Live", "Prettier", and a notification bell are also visible.

Pavyzdys 8



The image shows a screenshot of the Visual Studio Code editor interface. The top bar displays the file path: 8pvz.js - 04-if-salyga\05-loginiai-operatoriai. The editor window shows the following JavaScript code:

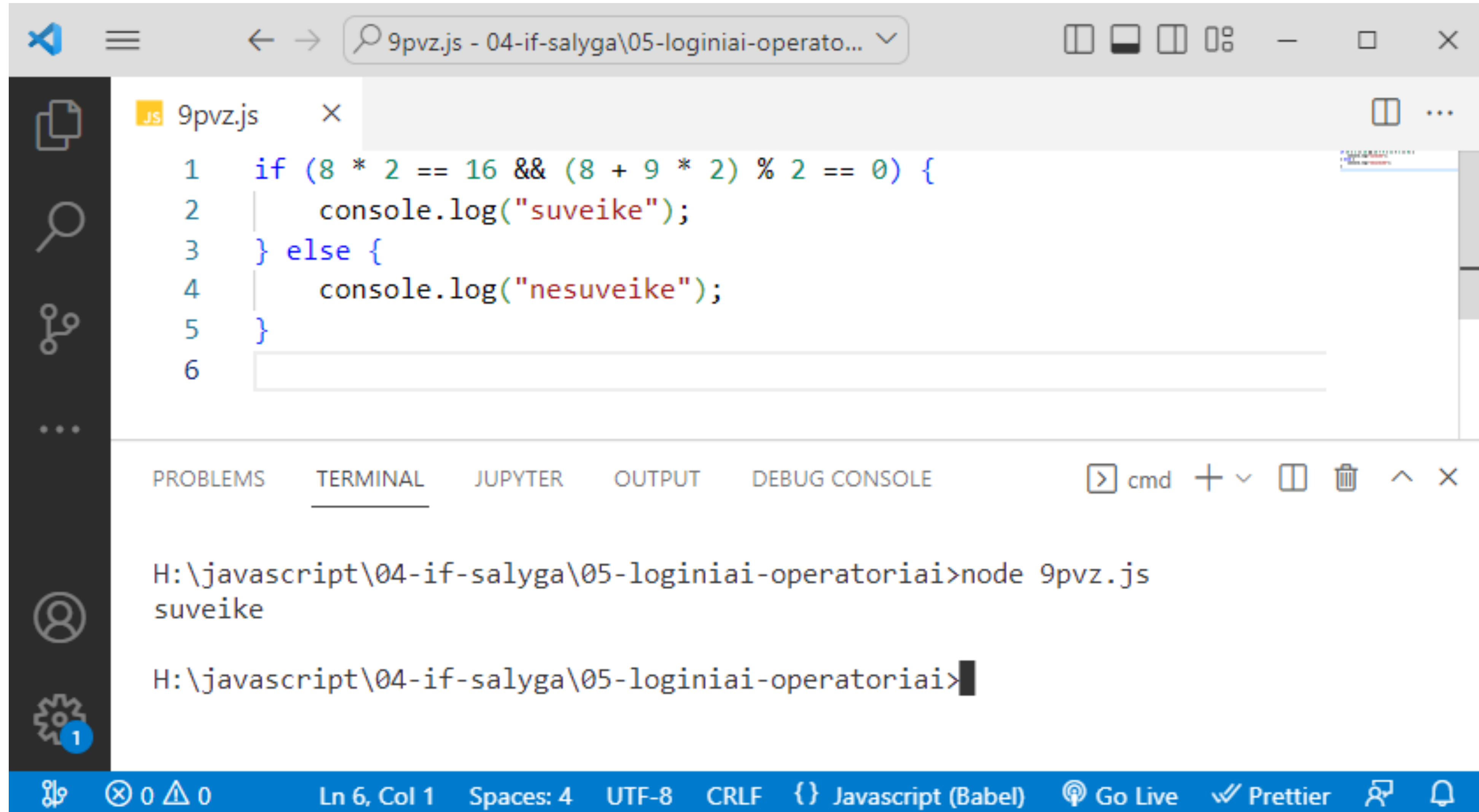
```
1  if (5 + 3 > 0 && 100 < 100) {  
2      console.log("suveike");  
3  } else {  
4      console.log("nesuveike");  
5  }  
6
```

The bottom panel shows the TERMINAL tab with the following output:

```
H:\javascript\04-if-salyga\05-loginiai-operatoriai>node 8pvz.js  
nesuveike  
  
H:\javascript\04-if-salyga\05-loginiai-operatoriai>
```

The status bar at the bottom indicates the current line and column (Ln 6, Col 1), the encoding (UTF-8), the line ending (CRLF), and the active language (Javascript (Babel)). It also shows icons for Go Live, Prettier, and other extensions.

Pavyzdys 9



The image shows a screenshot of the Visual Studio Code editor interface. The top bar displays the file name "9pvz.js - 04-if-salyga\05-loginiai-operatoriai...". The editor window shows the following JavaScript code:

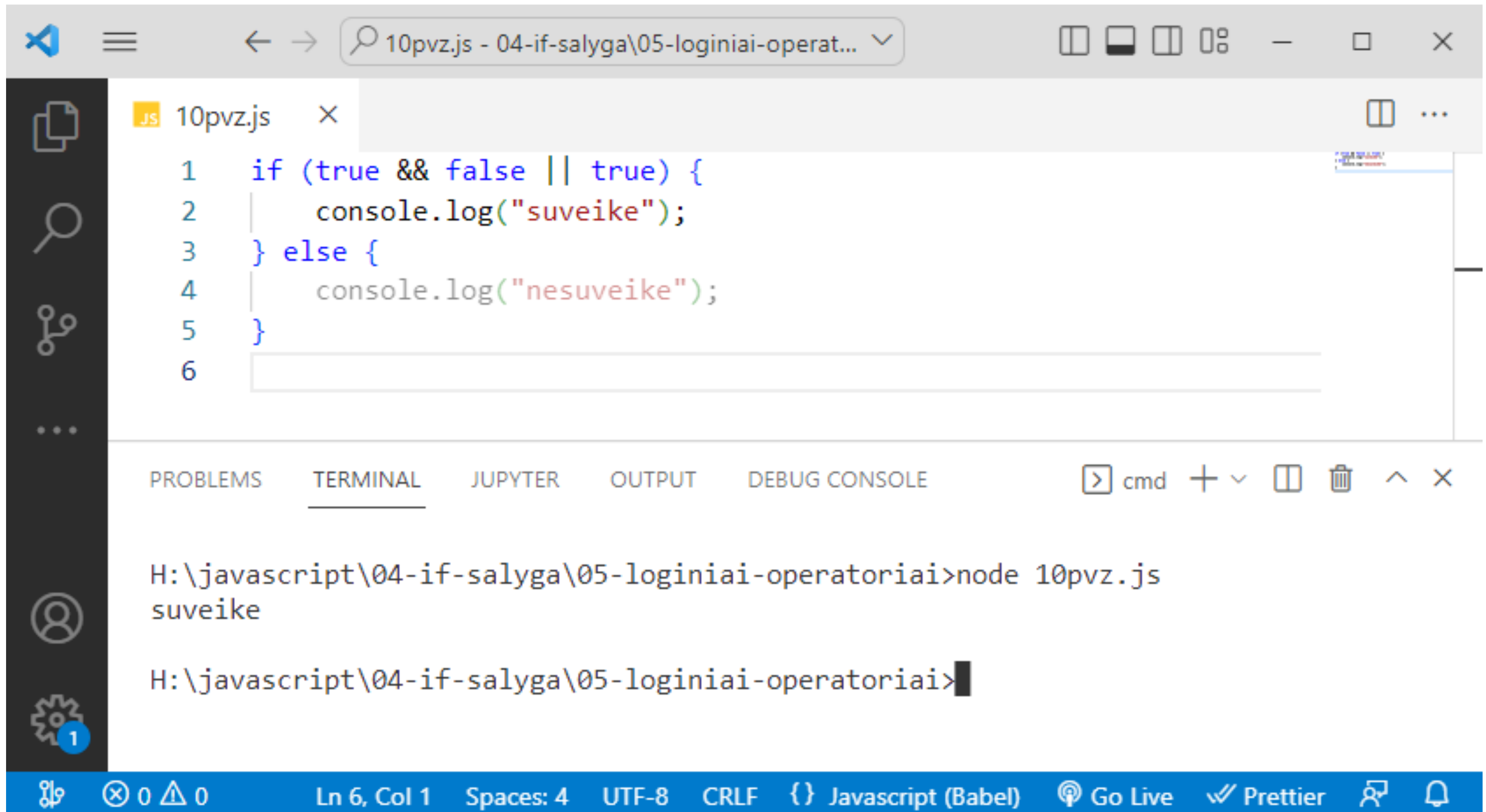
```
1  if (8 * 2 == 16 && (8 + 9 * 2) % 2 == 0) {  
2      console.log("suveike");  
3  } else {  
4      console.log("nesuveike");  
5  }  
6
```

Below the editor, the "TERMINAL" tab is active, showing the command prompt output:

```
H:\javascript\04-if-salyga\05-loginiai-operatoriai>node 9pvz.js  
suveike  
  
H:\javascript\04-if-salyga\05-loginiai-operatoriai>
```

The status bar at the bottom indicates the current line and column (Ln 6, Col 1), the number of spaces (Spaces: 4), the encoding (UTF-8), the line ending (CRLF), the language (Javascript (Babel)), and the status of the Go Live and Prettier extensions.

Pavyzdys 10



The image shows a screenshot of the Visual Studio Code editor interface. The top bar displays the file name "10pvz.js - 04-if-salyga\05-loginiai-operat...". The editor window shows the following JavaScript code:

```
1  if (true && false || true) {  
2      console.log("suveike");  
3  } else {  
4      console.log("nesuveike");  
5  }  
6
```

Below the editor, the "TERMINAL" tab is active, showing the command prompt output:

```
H:\javascript\04-if-salyga\05-loginiai-operatoriai>node 10pvz.js  
suveike  
  
H:\javascript\04-if-salyga\05-loginiai-operatoriai>
```

The status bar at the bottom indicates the current line and column as "Ln 6, Col 1", the encoding as "UTF-8", and the line endings as "CRLF". It also shows the active language as "Javascript (Babel)" and the presence of "Go Live" and "Prettier" extensions.

Pavyzdys 11



The image shows a screenshot of the Visual Studio Code editor interface. The top bar displays the file name "11pvz.js - 04-if-salyga\05-loginiai-operat...". The editor window shows the following JavaScript code:

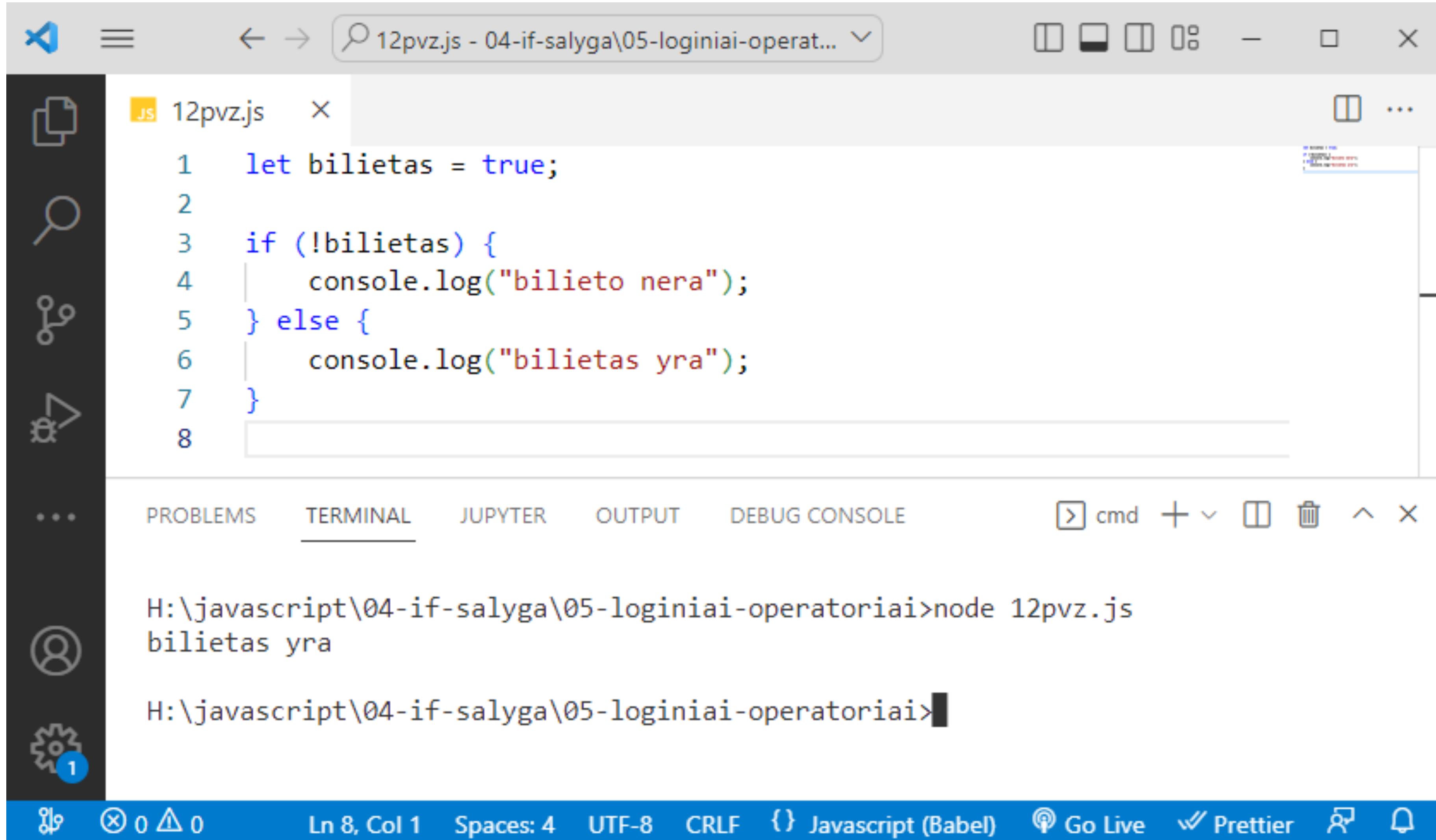
```
1  if (false && (false || true)) {  
2      console.log("suveike");  
3  } else {  
4      console.log("nesuveike");  
5  }  
6
```

Below the editor, the "TERMINAL" tab is active, showing the command prompt output:

```
H:\javascript\04-if-salyga\05-loginiai-operatoriai>node 11pvz.js  
nesuveike  
  
H:\javascript\04-if-salyga\05-loginiai-operatoriai>
```

The status bar at the bottom indicates the current line and column as "Ln 6, Col 1", the encoding as "UTF-8", and the line endings as "CRLF". It also shows the file type as "Javascript (Babel)" and the formatting engine as "Prettier".

Pavyzdys 12



The image shows a screenshot of the Visual Studio Code editor interface. The top bar displays the file name "12pvz.js - 04-if-salyga\05-loginiai-operat...". The editor window shows the following JavaScript code:

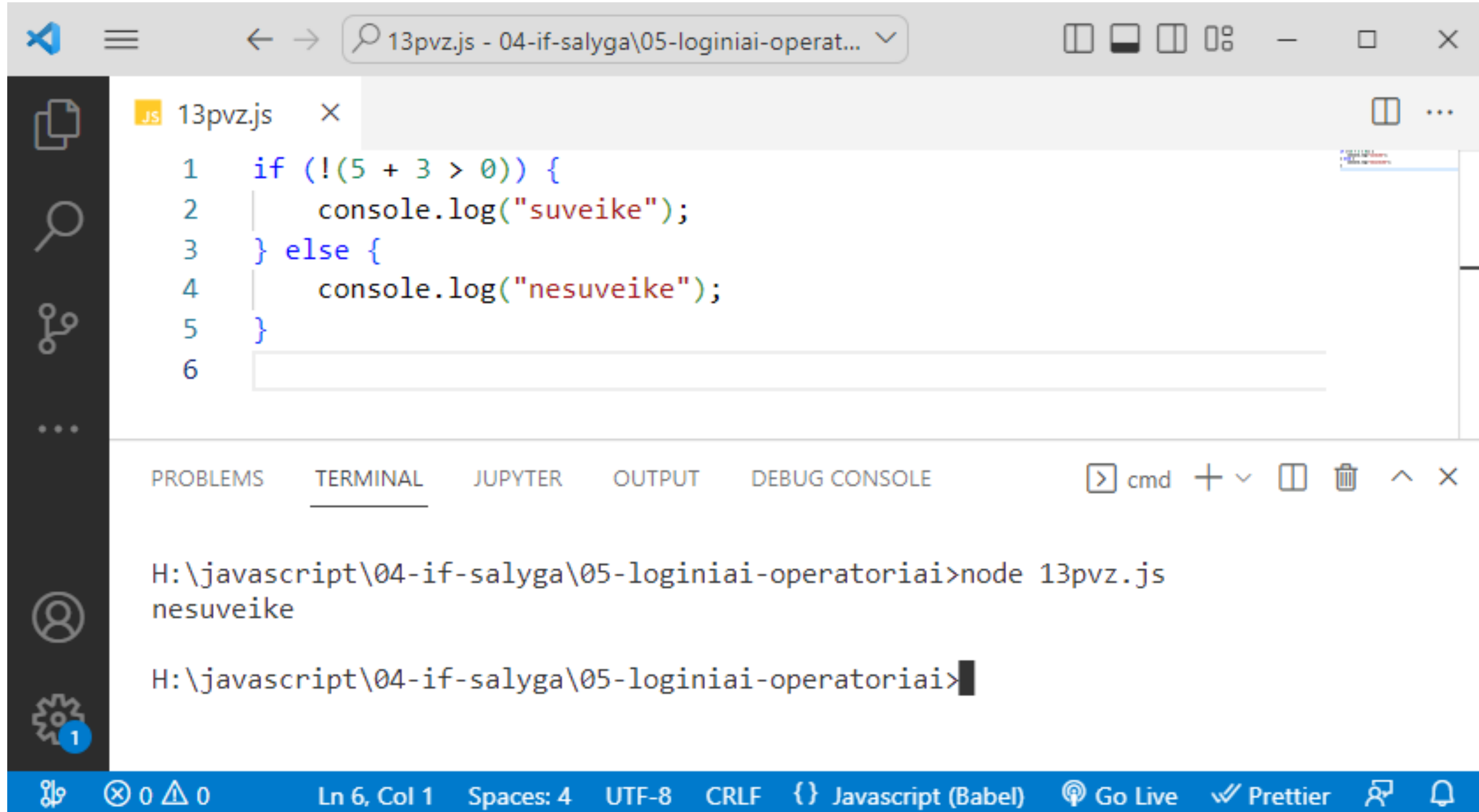
```
1 let bilietas = true;
2
3 if (!bilietas) {
4     console.log("bilieto nera");
5 } else {
6     console.log("bilietas yra");
7 }
8
```

Below the editor, the "TERMINAL" tab is active, showing the command prompt output:

```
H:\javascript\04-if-salyga\05-loginiai-operatoriai>node 12pvz.js
bilietas yra
H:\javascript\04-if-salyga\05-loginiai-operatoriai>
```

The status bar at the bottom indicates the current line and column as "Ln 8, Col 1", the encoding as "UTF-8", the line ending as "CRLF", and the language as "Javascript (Babel)". Other icons in the status bar include "Go Live", "Prettier", and a notification bell.

Pavyzdys 13



The image shows a screenshot of the Visual Studio Code editor interface. The top bar displays the file name "13pvz.js - 04-if-salyga\05-loginiai-operat...". The editor window shows the following JavaScript code:

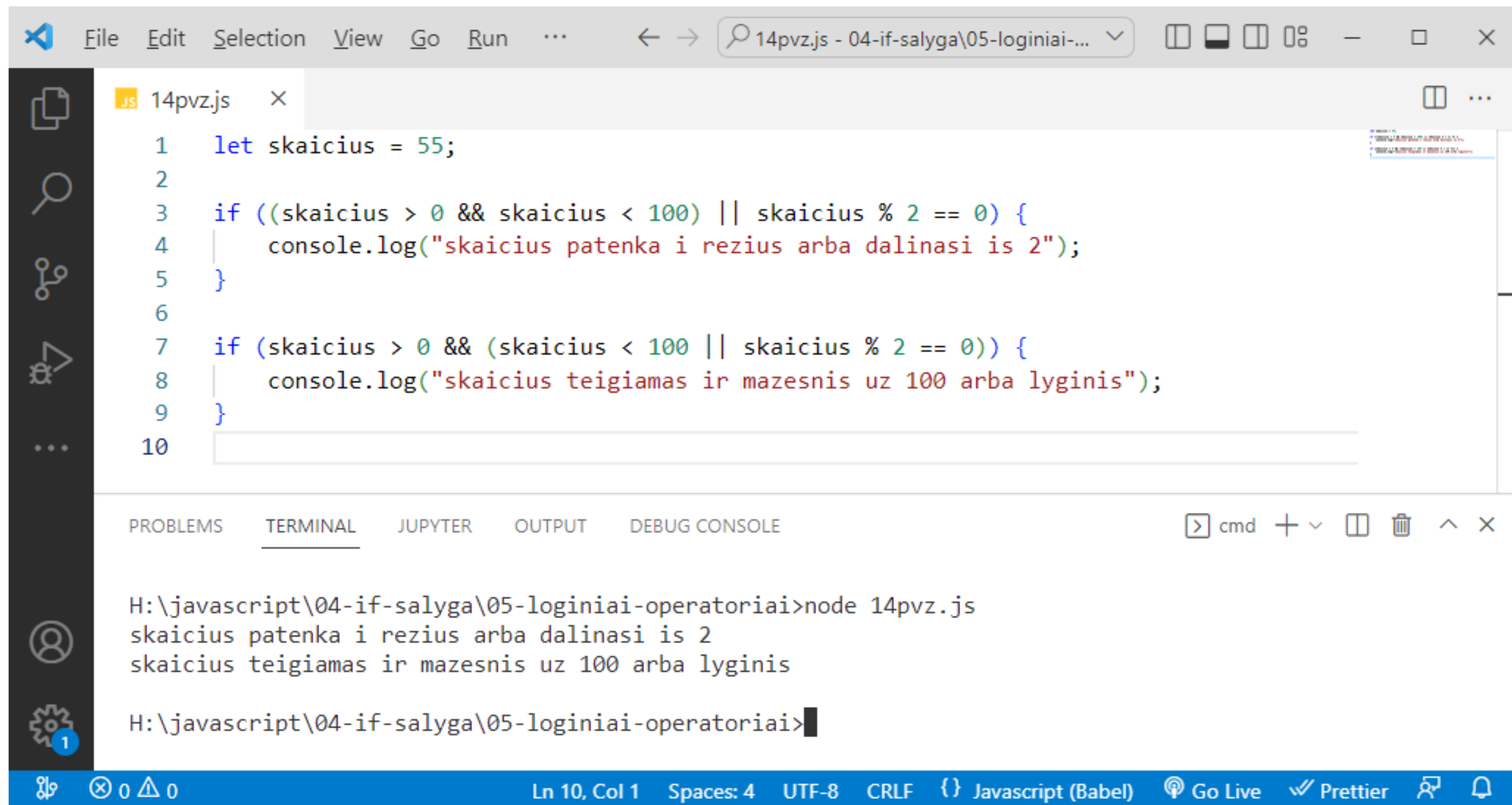
```
1  if (!(5 + 3 > 0)) {  
2      console.log("suveike");  
3  } else {  
4      console.log("nesuveike");  
5  }  
6
```

Below the editor, the "TERMINAL" tab is active, showing the command prompt output:

```
H:\javascript\04-if-salyga\05-loginiai-operatoriai>node 13pvz.js  
nesuveike  
  
H:\javascript\04-if-salyga\05-loginiai-operatoriai>
```

The status bar at the bottom indicates the current line and column (Ln 6, Col 1), the number of spaces (Spaces: 4), the encoding (UTF-8), the line ending (CRLF), the language (Javascript (Babel)), and other settings like Go Live and Prettier.

Pavyzdys 14



The image shows a screenshot of the Visual Studio Code editor interface. The top menu bar includes File, Edit, Selection, View, Go, Run, and a search bar. The search bar contains the text "14pvz.js - 04-if-salyga\05-loginiai-...". The editor window displays a JavaScript file named "14pvz.js" with the following code:

```
1 let skaicius = 55;
2
3 if ((skaicius > 0 && skaicius < 100) || skaicius % 2 == 0) {
4     console.log("skaicius patenka i rezius arba dalinasi is 2");
5 }
6
7 if (skaicius > 0 && (skaicius < 100 || skaicius % 2 == 0)) {
8     console.log("skaicius teigiamas ir mazesnis uz 100 arba lyginis");
9 }
10
```

The bottom panel shows the "TERMINAL" tab with the following output:

```
H:\javascript\04-if-salyga\05-loginiai-operatoriai>node 14pvz.js
skaicius patenka i rezius arba dalinasi is 2
skaicius teigiamas ir mazesnis uz 100 arba lyginis

H:\javascript\04-if-salyga\05-loginiai-operatoriai>
```

The status bar at the bottom indicates the current line and column (Ln 10, Col 1), the number of spaces (Spaces: 4), the encoding (UTF-8), the line ending (CRLF), the language (Javascript (Babel)), and the active extensions (Go Live, Prettier).

Užduotys

12. Susikurkite tris skaičius. Suraskite kuris iš šių skaičių yra didžiausias.

13. Susikurkite tris skaičius. Suraskite kuris iš šių skaičių yra mažiausias.

14. Susikurkite trijų egzaminų rezultatų kintamuosius. Suraskite pažymių vidurkį. Atlikite šiuos patikrinimus:

1. ar gautas vidurkis yra $[8-10]$;
2. ar gautas vidurkis yra $[5-8]$;
3. ar gautas vidurkis yra < 5 .

15. Susikurkite du skaičius. Patikrinkite (naudojant 4 atskirus if'us):

1. ar pirmas skaičius yra didesnis už antrąjį arba yra lygus 0;
2. ar antras skaičius yra didesnis už pirmąjį arba yra lygus 5;
3. ar pirmas skaičius yra didesnis už antrąjį ir yra lygus 20;
4. ar antras skaičius yra didesnis už pirmąjį ir yra mažesnis už 100;