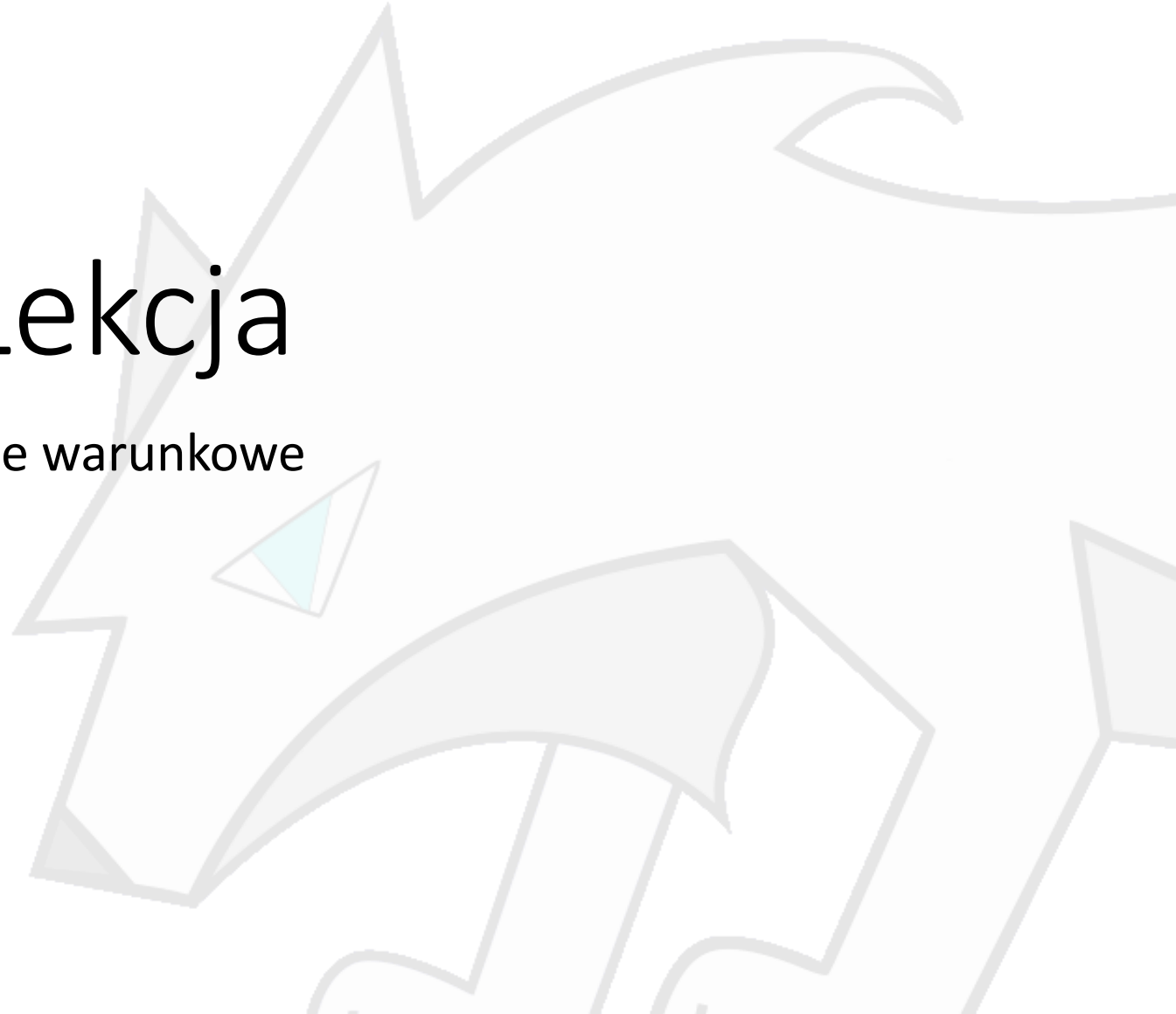
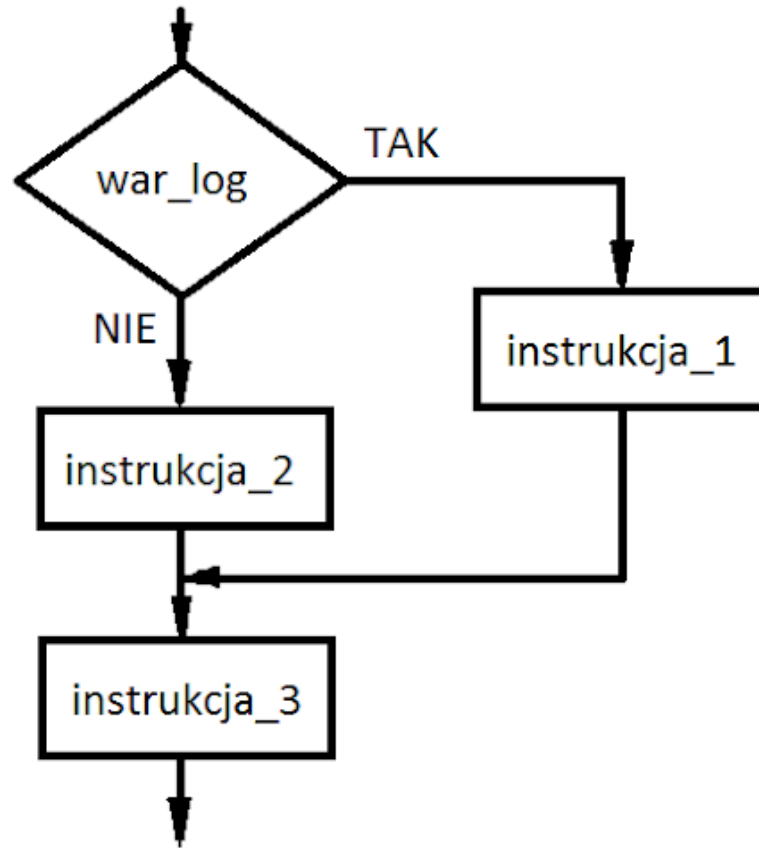


4. Lekcja

Instrukcje warunkowe



Co to jest instrukcja warunkowa ?



- element języka programowania, który pozwala na wykonanie różnych **instrukcji** w zależności od tego czy zdefiniowane przez programistę wyrażenie logiczne jest prawdziwe, czy fałszywe.

Rodzaje instrukcji if

- If bez nawiasów

```
boolean condition1 = false;

if (condition1) //always check true
    // without brackets only one next operation will be run if condition1 will be true
```

- If z nawiasami

```
boolean condition1 = false;

if (condition1) {
    //operation between brackets will be run if condition1 will be true
}
```

- If else

```
boolean condition1 = false;

if (condition1) {
    //operation between brackets will be run if condition1 will be true
} else {
    //operation between brackets will be run if condition1 will be false
}
```

- If else if else

```
boolean condition1 = false;
boolean condition2 = true;

if (condition1) {
    //operation between brackets will be run if condition1 will be true
} else if (condition2) {
    //operation between brackets will be run if condition1 will be false and condition2 will be true
} else {
    //operation between brackets will be run if condition1 and condition2 will be false
}
```

- If else if

```
boolean condition1 = false;
boolean condition2 = true;
boolean condition3 = false;

if (condition1) {
    //operation between brackets will be run if condition1 will be true
} else if (condition2) {
    //operation between brackets will be run if condition will be false and condition2 will be true
} else if (condition3) {
    //operation between brackets will be run if condition1 and condition2 will be false and condition3 will be true
}
```

- ?

```
boolean condition1 = false;

condition1==true?/*return value if condition1 will be true*/:/*return value if condition1 will be false*/;
```

Demo > src > com > company > Main > main



1: Project Main.java x

```
9      if (hundred == 100)
10         System.out.println("The value is 100");
11
12      if (hundred > 0) {
13         System.out.println("The value is bigger than 0");
14      }
15
16      if (hundred != 100) {
17         System.out.println("The value is not 100");
18      } else {
19         System.out.println("The value is 100");
20      }
21
22      if (hundred > 100) {
23         System.out.println("The value is bigger than 100");
24      } else if (hundred < 100) {
25         System.out.println("The value is less than 100");
26      } else {
27         System.out.println("The value is 100");
28      }
29
30      if (hundred == 10) {
31         System.out.println("The value is 10");
32      } else if (hundred == 20) {
33         System.out.println("The value is 20");
34      } else if (hundred == 30) {
35         System.out.println("The value is 30");
36      }
37
38      boolean isHundred = hundred == 100 ? true : false;
```

11 ^ v

Ant

2: Structure

3: Favorites

TODO 6: Problems Terminal

Event Log

Instrukcja switch

```
byte age = 28;

switch (age) { //variable which should be check
    case 10:
        //if age is equal 10 below instruction will be run
        break;
    case 20:
        //if age is equal 20 below instruction will be run
        break;
    case 30:
        //if age is equal 30 below instruction will be run
        break;
    default:
        break;
}
```

- Instrukcja „switch” oczekuje zmiennej, która następnie sprawdza z wartościami po „case”.
- Instrukcja przyjmuje wszystkie typy proste oprócz boolean
- Instrukcje po „case” wykonywane są wszystkiego do momentu napotkania polecenia „break”.
- Bez polecenia „break” operacje po „case” wykonywane są wszystkie po kolei.
- Instrukcja „default” oznacza, że jeśli żadna instrukcja „case” nie będzie pasować wtedy instrukcja „default” się wykona.



10



FileEditViewNavigateCodeAnalyzeRefactorBuildRunToolsVCSWindowHelp

Demo [C:\Users\dobne\IdeaProjects\Demo] - Main.java

Demo > src > com > company > Main

Project

Demo

C:\Users\dobne\IdeaProjects\Demo

> .idea

> out

> src

> com.company

> Main

> Demo.iml

> External Libraries

> Scratches and Consoles

Main.java

```
1 package com.company;
2
3 public class Main {
4
5     public static void main(String[] args) {
6
7         byte age = 20;
8
9         switch (age) {
10             case 10:
11                 System.out.println("I'm 10 years old");
12             case 20:
13                 System.out.println("I'm 20 years old");
14             case 30:
15                 System.out.println("I'm 30 years old");
16             }
17         }
18     }
19 }
20
```

Run: Main

```
"C:\Program Files\Java\jdk-11.0.8\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2020.2.2\lib\idea_rt.jar=51
I'm 20 years old
I'm 30 years old

Process finished with exit code 0
```

4: Run

TODO

6: Problems

Terminal

Build

Event Log

Build completed successfully in 8 s 34 ms (2 minutes ago)

20:1 CRLF UTF-8 4 spaces

Czas na zadania!

