

# Programování 1 (cvičení)

5.10.2018

faltin@ksi.mff.cuni.cz

# Požadavky na zápočet

- ▶ Zápočtový program
  - ▶ Téma do 16.12.
  - ▶ 1. odevzdání do 30.4.
- ▶ Domácí úkoly
  - ▶ 70%
  - ▶ ReCodex
- ▶ Písemka
  - ▶ Poslední 2 cvičení
  - ▶ Dynamické proměnné



# Hello World

```
Program HelloWorld;  
{ Hello World program }  
  
var helloWorldStr : string;  
  
begin  
  helloWorldStr := 'Hello World';  
  writeln(helloWorldStr);  
end.
```



# data types

- ▶ Integer
  - ▶ Real
  - ▶ Character
  - ▶ Boolean
  - ▶ String
  - ....
- 

# input/output

```
Program IO;  
{ IO program }  
  
var number : integer;  
  
begin  
  read(number);  
  write(number);  
end.
```

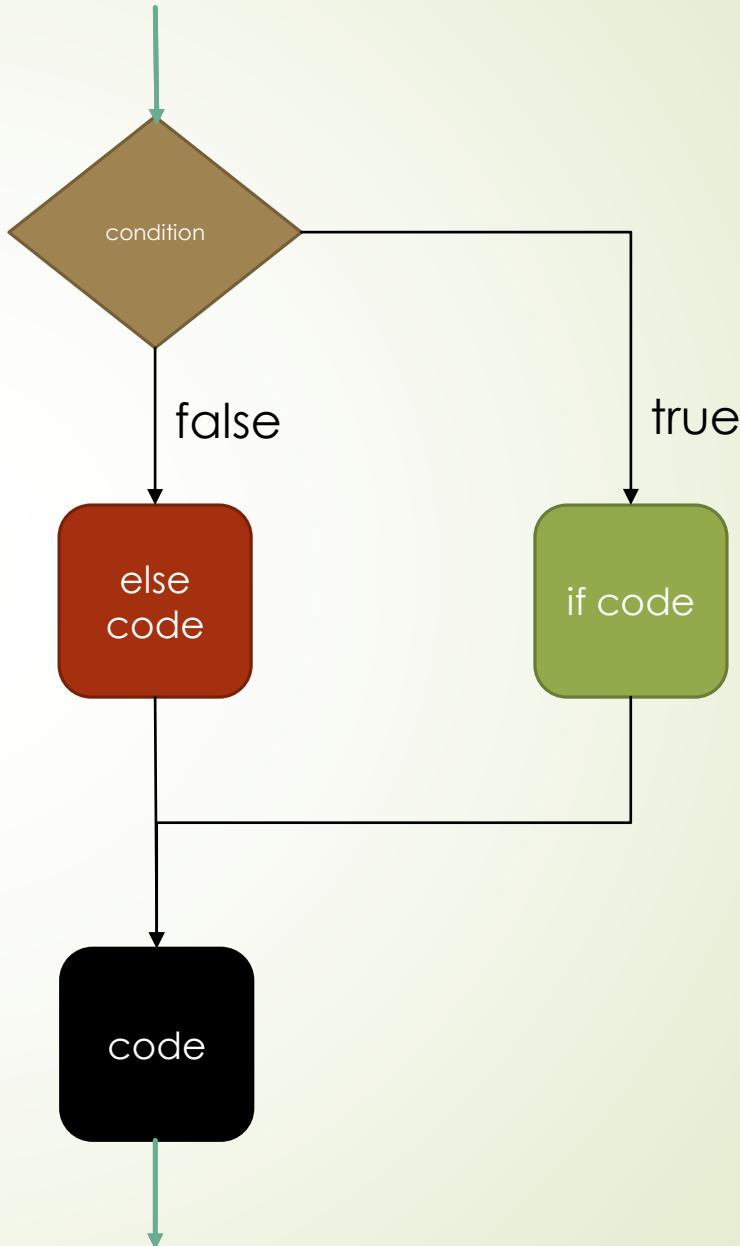
# if-then

```
if x = 1 then  
begin  
  y := 2;  
end
```

```
if y = 2 then  
  y := 3  
else if y = 3 then  
  y := 5;  
else  
  y := 4;
```

```
if y = 2 then  
  y := 3
```

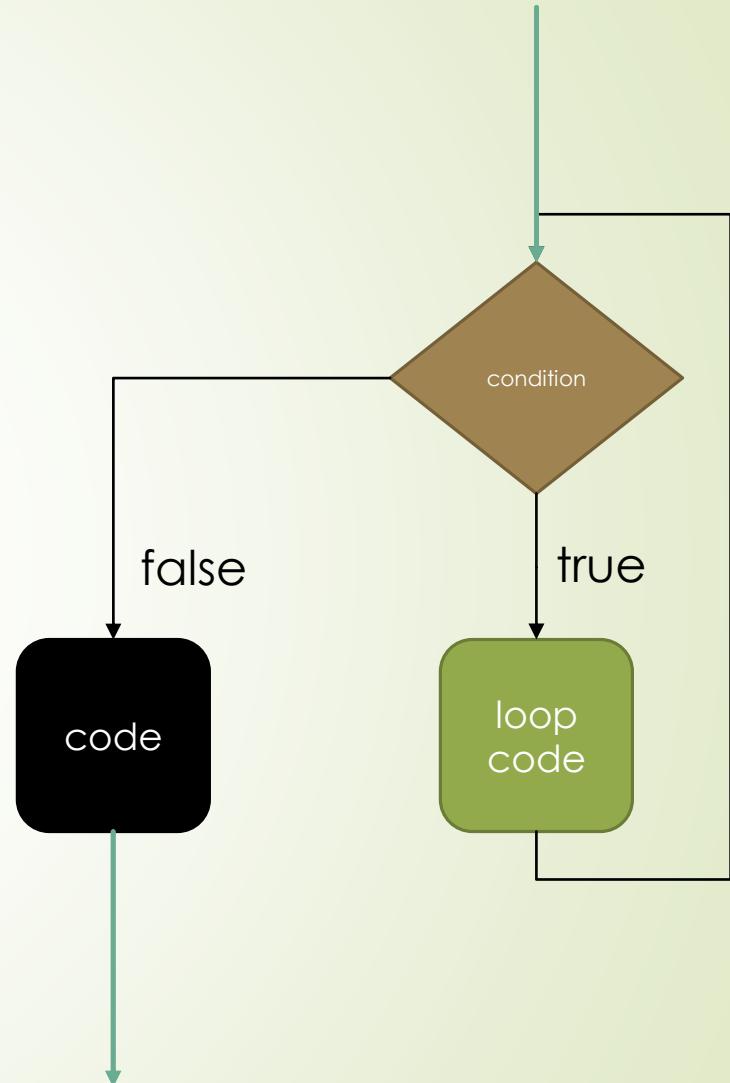
```
if y = 3 then  
  y := 5;  
else  
  y := 4;
```



# while-loop

```
while number > 0 then  
begin  
    number := number – 1;  
end;
```

```
while number1 > 0 and number2 > 0 then  
begin  
    number1 := number1 – 1;  
    number2 := number2 – 1;  
end;
```





# for-loop

```
for i:= 1 to 10 do  
begin  
  j := i * 10;  
  writeln(j);  
end;
```



# Crt knihovna

Program ProgramCrt  
uses Crt;

{ <https://www.freepascal.org/docs-html/rtl/crt/index-5.html> }

```
begin
  ClrSrc; { Clear current window }
  Delay(1000); { Wait 1000ms }
  GotoXY(10, 20); { Move cursor to position x=10,y=20 }
  TextColor(White); { Set text color }
  TextBackground(Black); { Set background color}
  Window(30, 10, 50, 20); { Create new window }
end.
```

# Úkoly

1. Hello World
2. Hello “tvoje jméno” (I/O)
3. Načti číslo a podle toho pozdrav
  - ▶ (1) -> Hello, (2) -> Ahoj, (3) -> Nazdar, jinak -> Peace
4. Vyspat několikrát (2) (loop)
5. Hra Snake
  - 1. W, A, S, D – ovládání hada
  - 2. Zarážky
  - 3. Potrava