

Oppimispäiväkirja  
Ohjelmoinnin syventävät tekniikat

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OPPIMISPÄIVÄKIRJA

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SISÄLLYS

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# Tehtävä 1

import java.util.Scanner;

import java.util.Random;

public class guess\_random {

static int guess() {

Scanner scan = new Scanner(System.in);

System.out.println("Enter a guess (1 - 100): ");

scan.close();

return scan.nextInt();

}

public static void main(String[] args) {

Random rand = new Random();

int correct = rand.nextInt(100) + 1;

for (int i = 0; i < 7; i++) {

int guess = guess();

if (guess == correct) {

System.out.println("You guessed correctly!");

return;

}

}

System.out.println("You ran out of attempts.");

System.out.println("Correct answer was " + correct);

return;

}

}

# Tehtävä 2

import java.time.LocalDate;

public class Birthday {

public static void main(String[] args) {

String birthdateValue = System.getenv("BIRTHDATE");

LocalDate birthdate = LocalDate.parse(birthdateValue);

LocalDate today = LocalDate.now();

if (isSameDate(today, birthdate)) {

System.out.println("Happy birthday!");

}

long daysOld = today.toEpochDay() - birthdate.toEpochDay();

System.out.println(String.format("You are %d days old.", daysOld));

if (daysOld % 1000 == 0 && daysOld > 0) {

System.out.println("That's a nice round number!");

}

}

public static boolean isSameDate(LocalDate date1, LocalDate date2) {

return date1.getDayOfMonth() == date2.getDayOfMonth() &&

date1.getMonth() == date2.getMonth();

}

}

# Tehtävä 3

import java.time.LocalDate;

import java.time.format.TextStyle;

import java.util.Locale;

import java.util.Arrays;

public class EventTest {

public static void main(String[] args) {

Category appleMacOS = new Category("apple", "macos");

Event[] events = {

new Event(LocalDate.parse("2024-09-16"),"macOS 15 Sequioa released",appleMacOS),

new Event(LocalDate.parse("2023-09-26"),"macOS 14 Sonoma released",appleMacOS),

new Event(LocalDate.parse("2022-10-24"),"macOS 13 Ventura released",appleMacOS),

new Event(LocalDate.parse("2021-10-25"),"macOS 12 Monterey released",appleMacOS),

new Event(LocalDate.parse("2020-11-12"),"macOS 11 Big Sur released",appleMacOS),

};

for (Event event : events) {

String dayName = event

.getDate()

.getDayOfWeek()

.getDisplayName(

TextStyle.FULL,

Locale.getDefault()

);

String releaseName = event

.getDescription()

.substring(

0,

event.getDescription().length() - 9

);

System.out.print(releaseName + " was released on a " + dayName + "\n");

}

String[] osNames = new String[events.length];

for (int i = 0; i < events.length; i++) {

osNames[i] = events[i]

.getDescription()

.substring(

9,

events[i]

.getDescription()

.length() - 9

);

}

Arrays.sort(osNames);

System.out.printf("In aplhabetical order: %s\n", Arrays.toString(osNames));

}

}