

# Dasar-Dasar Pemrograman 2

## Poster Project

2.5% of final course grade



FAKULTAS  
ILMU  
KOMPUTER

For this project, you will be assigned into a team of 3 (three) students (which all must share equal workloads, NO freeloader shall be tolerated).

The task is to make an *e-poster* of **A3 size** about **Java programming**.

## Topics

The topic (and topic code) for your poster will be chosen from:

- **BP** - Basic Programming (Selections and Repetitions)
- **AR** - Arrays & Arraylist
- **GE** - Generics
- **RE** - Recursion
- **OO** - OOP
- **IP** - Inheritance & Polymorphism
- **AI** - Abstract Classes and Interfaces
- **EX** - Exception Handling
- **TE** - Text I/O
- **JF** - JavaFX
- **BI** - Binary I/O

You will be assigned randomly one of the above topics.\*

### \*Exception:

We are not dictators :) If you want to pick out a specific topic about any cool Java library (that is not given in the course), feel free to ask for permission to your TAs/lecturer. Some examples of non-standard Java libraries are as follows:

- Jena (<https://jena.apache.org/>)
- Google Guava (<https://github.com/google/guava>)
- Weka (<https://www.cs.waikato.ac.nz/ml/weka/>)
- etc.



## Content



What can be put into your poster:

- **Who (small at top/bottom):** Names, TA name, lecturer name
- **Motivation:** Why is the topic/feature important? Provide also data/screenshots of articles to support your argument.
- **Overview:** What is it?
- **Details:** How does it work?
- **Code examples**
- **Cool images/icons to support your content**

The above list is just a suggestion, you can rule out or add whatever makes your poster look nicer! Make sure that the content is made by your own. If there are sources taken from the Web (like icons, articles), include the references. The posters can be made in any language: Indonesian, English, Javanese, Sundanese, etc!

### **Important :**

At the top/bottom of your poster, you should have both of these logos:

Creative Commons	Fasilkom UI
	

## Resources

- **Wallpapers:** unsplash, pexels
- **Icons:** iconfinder, iconarchive, flaticon
- **Fonts:** fontsquirrel
- **Inspirations/tools:** Canva, <https://venngage.com/templates/>, Powerpoint, Corel Draw, Adobe Photoshop, Gimp, Inkscape

*Feel free to use, reuse, and share this work: the more we share, the more we have!*



## Publication

The poster must be shared online (in whatever media you like, which could be Instagram, Twitter, Figshare, Slideshare, Medium, FB, blogs, etc).

Best posters will be printed out and hung on the bulletin boards of Fasilkom UI, in cooperation with Fasilkom UI public relations (Humas Fasilkom UI). **You'll get viral for this.**

## Grading Components

Component	Details	Weight
Design	Readability, structure, wow factor, and nice looks.	40 %
Content Quality	Correctness, clarity, and coherence.	40 %
Originality	Idea and originality of work.	20 %

## Submission

Submit a ZIP file containing:

- A .txt file containing the group member names, student IDs, and the online poster link/social media shared link.
- A PDF file of your poster.

Submit your work to the submission slot on SCeLE with format specified below:

**[C]-[TT]-[GG].zip**

Where **C** is your **class name**, **TT** is the **topic code**, and **GG** is the **group code**.

For example: C-JF-08.zip

Report the progress of your work to your TA by: **May 2, 2019 at 23:55**

Submit your work by: **May 16, 2019 at 23:55**

The poster grading and winner announcement will be held on: **Saturday, May 18, 2019 at 11:30**

## Author and Acknowledged Lecturer:

- Dr. Fariz Darari

## Modified by:

- TA Team

## Poster Examples

# Programming Data Types



## Integer

### Whole Numbers

Any whole number can be represented by an Integer, usually stored as a single 32bit byte.

We can store 4,294,967,296 values in an integer.

```
int age = 29;
```

## Real

### Decimal Numbers

Any number with a decimal point, they are usually either 2 or 4 bytes long because they need to store a value for the whole number component and the decimal component.

```
double average = 17.61;
```

## Character

### Single letter/number/symbol

Any single letter, number or symbol can be stored as a character. It is one byte long and stores a single ASCII code to represent it.

```
char gender = 'f';
```

## String

### Many Characters

A one dimensional array used to store many characters together, for example a sentence.

Each character is a byte.

```
String greeting =  
"Hello there";
```

## Boolean

### TRUE or FALSE

A boolean only stores two possible values, usually TRUE or FALSE.

Normally one byte long.  
Really useful for conditions.

```
Boolean isRunning = TRUE;
```

## Date/Time

### Special integers

A date would be represented in the form XX/XX/XXXX e.g. 12/04/2023 and normally uses 8 bytes of memory.

Time would be represented in the form XX:XX:XX such as 18:21:59.

## Arrays

### Sets of Data

An array is a set of data of the same type that is grouped together using the same identifier. This means we can store loads of data in a single place.

Arrays work by having a size and an index to access about each element.

```
int[] Score = { 4, 5, 21 }
```

would create an array with three elements, 4, 5 and 21. To access these we start with index 0 which shows the first item in the array.

```
Score[0] = 4;  
Score[1] = 5;  
Score[2] = 21;
```

## 2D Arrays

### 'Tables' of Data

Using two levels of index for an array turns it into a simple table that we can address through normal coordinate notation.

```
Score[0][3] = 9;
```

would access the fourth row of the first column.

## Records

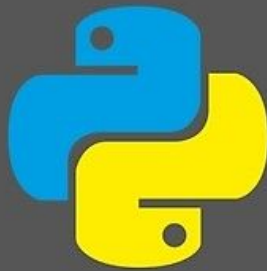
A record is a way of storing lots of data, with multiple data types, together. Commonly used with databases, a record would store all of the information relating to a single subject in a data wrapper so that it could be kept logically together.

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<https://www.redbubble.com/people/lessonhacker/works/11635120-programming-data-types-coding-literacy?p=poster>

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# INTRODUCTION TO PYTHON

Python is a high level programming language that is very powerful

## BASICS

### OUTPUT TEXT

```
print("Hello")
```

Your program can output simple text Strings by putting them in between Quotes

### OUTPUT NUMBERS

```
print(1234)
```

Numbers can be typed in without anything to enclose them

## VARIABLES

### STORE & USE TEXT

```
varHi = "Hi"  
print(varHi)
```



changes the value of a variable

Naming variables then setting them to a value using = means we can use the name later to call the value that we set

You can change the value of a variable but not the **type** of data

### OTHER VARIABLE TYPES

```
varChar = 'a'  
varString = "Hi"  
varInt = 21  
varReal = 7.3  
varBool = True
```

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[https://www.redbubble.com/people/lessonhacker/works/15413591-intro-to-python-poster-computer-science-gcse-1?ref=work\\_carousel\\_work\\_portfolio&ref\\_id=11635120](https://www.redbubble.com/people/lessonhacker/works/15413591-intro-to-python-poster-computer-science-gcse-1?ref=work_carousel_work_portfolio&ref_id=11635120)

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## Tridharma Terbuka

Semangat dan aksi untuk pendidikan, penelitian, dan pengabdian kepada masyarakat yang lebih terbuka

### Masalah kesenjangan mutu perguruan tinggi

**Top-9 universitas di Indonesia yang semuanya berada di Pulau Jawa**

### Apa manfaat apabila konten Tridharma pada Perguruan Tinggi dibuka?

Di samping meningkatkan kolaborasi antar perguruan tinggi di Indonesia untuk saling meningkatkan mutu, manfaat-manfaat lainnya adalah:

- Memutus rantai birokrasi dalam pemanfaatan konten.
- Meminimalkan biaya dalam pengaksesan konten.
- Meningkatkan kredibilitas institusi pembuka konten.
- Memperluas jangkauan manfaat hasil-hasil Tridharma.
- Mempercepat pertumbuhan ilmu pengetahuan dan teknologi dengan terbukanya hasil-hasil penelitian.

### Apa saja yang dapat dibuka dari Tridharma?

**Pendidikan:** Materi kuliah, latihan soal, buku referensi, book chapter, buku ajar, silabus, slides, katalog perpustakaan, koleksi-koleksi perpustakaan.

**Penelitian:** Jurnal, data penelitian, data profil peneliti, rekaman audio/Video seminar hasil penelitian, prosiding konferensi/workshop, skripsi/tesis/disertasi, poster, review hasil penelitian, kode sumber (source code) aplikasi komputer, proposal penelitian (termasuk anggarannya).

**Pengabdian Masyarakat:** Materi pelatihan untuk masyarakat, laporan pengabdian masyarakat, poster, data kegiatan BEM, laporan anggaran.

### Cara cepat: Buka Tridharma seluas-luasnya!

- 1) Unggah hasil luaran Tridharma pada repository daring.
- 2) Beri lisensi yang sifatnya terbuka.

Contoh repository terbuka:

**Lisensi Terbuka: Creative Commons**

Logo	Nama	Keterangan
	BY: Attribusi	Kewajiban untuk memberikan credit kepada pencipta.
	BY-NC: Non-komersial	Larangan penggunaan ciptaan untuk kepentingan komersial.
	BY-ND: Tanpa Turunan	Larangan untuk mengubah dan menggubah ciptaan.
	BY-NC-ND: Berbagi Seneca	Kewajiban untuk menerapkan lisensi yang sama pada setiap hasil gubahan/turunan.

Keempat ketentuan tersebut dapat dikombinasikan menjadi enam jenis lisensi Creative Commons:\*

### Survei membuktikan...

... dari 15 responden, yakni 7 dosen, 5 mahasiswa, 3 profesional, menyatakan: **Seberapa pentingkah pemberian informasi lisensi pada suatu karya luaran Tridharma?**

Tertarikah Anda untuk mempublikasikan sebagian karya luaran Tridharma Anda menggunakan lisensi terbuka?

### Best Practice

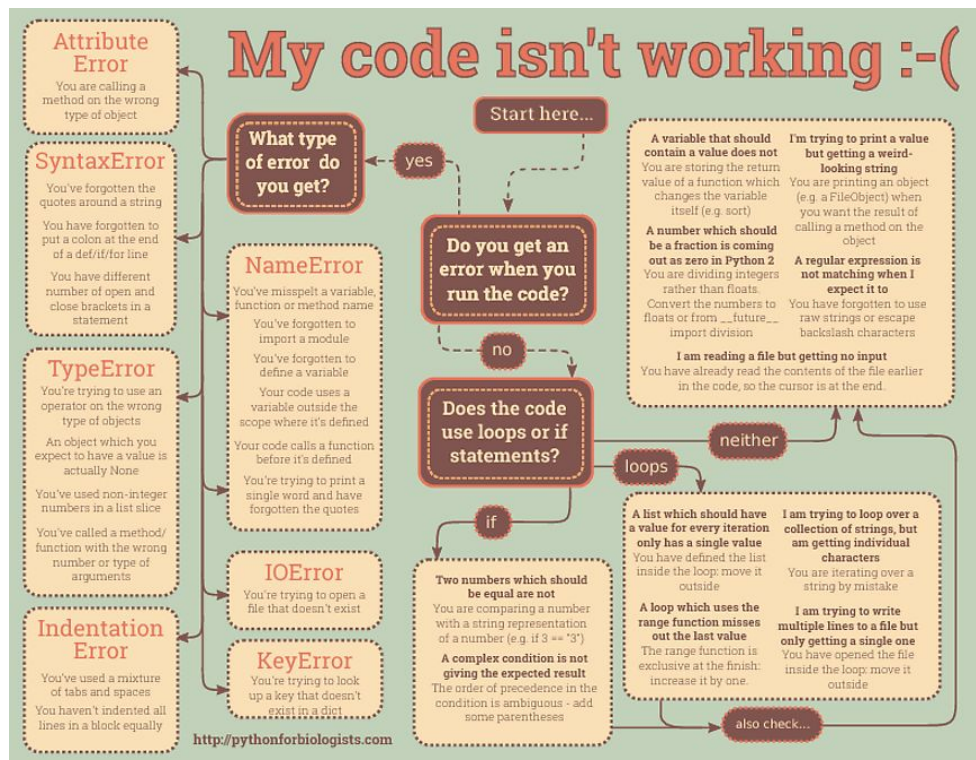
### Undang-Undang Dasar RI 1945

Setiap orang berhak mengembangkan diri melalui pemenuhan kebutuhan dasarnya, berhak mendapat pendidikan dan memperoleh manfaat dari ilmu pengetahuan dan teknologi ... (Pasal 28C)

Setiap orang berhak untuk berkomunikasi dan memperoleh informasi untuk mengembangkan pribadi dan lingkungan sosialnya, serta berhak untuk mencari, memperoleh, memiliki, menyimpan, mengolah, dan menyampaikan informasi ... (Pasal 28F)

\* Credits are listed at: <http://bit.ly/tridharmaCredits>      \* Did you know why ND and SA can't go together? Email me an answer, there is a prize for first 5 correct answers: )      This poster content was compiled by Fariz Fariz (fariz@cs.ui.ac.id)

Available as editable pptx file: <https://zenodo.org/record/2613717#.XLKec-qzZhE>



<https://discuss.codecademy.com/t/what-common-errors-should-i-look-for/297497>

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