"Business Programming"
Learn Programming from Zero in Only Three Weeks

Summer 2024
August 5th – 23rd 2024

Digital (Zoom)

Overview, 1

- Short introduction round
  - Your name, where from, why here, programming experiences, expectations/wishes

- Organization of the course

- Resources
  - WU members: preconfigured virtual machine
    - Usable via a web browser (VPN, if working remote) or
    - Installation of the Horizon client on your own WU computer
  - Alternatively, install the needed software on your personal computer
    - ooRexx
    - Java and BSF4ooRexx (ooRexx – Java bridge)
    - Optionally, the free IntelliJ (by JetBrains) professional development environment

Overview, 2

- In general
  - Daily from 9:00 through 13:00 with a short break after 90 minutes(~ 10:30)
    - Get up, fresh air, move around: relax, get bloodstream up and running again ☺

- Mailman mailing list of this course
  - For questions (administrative, content): please ask, including "dumb" ones ☺
  - For distributing the two short assignments to all of us
  - Simply send an e-mail to: `wu_bp_2024s@alice.wu.ac.at`
    - Your e-mail gets distributed to all subscribed members of the mailman list!

- "Pair programming": no one is alone! ☺
  - Cooperatively (!) create two short assignments
  - Help each other as much as possible

Overview, 3

- Goals
  - Understand and apply the fundamentals of programming
  - Become able to create short programs on your own, e.g., to better support your own work on Windows, macOS, and Linux!

- Short assignments from day to day
  - Two as short as possible (!) programming examples per group
  - Distribute them via the mailing list

- Short project in the middle and at the end of this course
  - Purpose: apply acquired knowledge practically
  - Each group will suggest three small project ideas of which one gets selected
    - Instead of the two short assignments, realize the short project

- Please ask questions, especially "dumb" ones! ☺

Resources, 1

- Software
  - ooRexx ("Open object Rexx")
    - Simple syntax: easy and therefore can be quickly learned
    - Available for Windows, Apple (macOS), Linux and more
  - BSF4ooRexx850
    - ooRexx-Java-bridge: makes it easy to exploit Java on Windows, macOS, and Linux
    - Menu "BSF4ooRexx850 → ooRexxTry.rxj":
      - Allows to create and run ooRexx programs on all operating systems
      - Written by two WU students (!) exploiting BSF4ooRexx
  - IntelliJ (optional)
    - Professional development environment for all operating systems (implemented in Java)
    - Free community edition, "education" edition for academia
    - ooRexx-Plugin available (written by a former WU-student!)

Resources, 2

- Virtual PCs of WU
  - Virtual Machine (VM): a "computer written in pure software"
  - If accessing from outside WU: must use VPN ("virtual private network") for WU!
  - Link: *https://labconnect.wu.ac.at/*
    - Use a web browser or install the "VMWare Horizon Client" on your PC
    - Login with your WU user ID and your WU password
    - Click the tile on the left, entitled "Virtueller Übungsraum"
    - All needed course software is already installed!

- Course slides will get uploaded to
  - *http://wi.wu.ac.at/rgf/wu/lehre/slides/BusinessProgramming/2024s*

- Course link for zoom
  - *https://zoom.us/j/91925066620?pwd=vAz1oY2Os6atiNG00o0YmqbabDBF8y.1*
    (Meeting ID: 919 2506 6620 Passcode: *514930)*

Resources, 3

- Group meetings
  - Use whatever is accessible and easy for you
  - Advice: try out `https://www.senfcall.de/en/`
    - A great, free, and opensource meeting software, easy to set up and to use
      - BigBlueButton (`https://en.wikipedia.org/wiki/BigBlueButton`)
    - European DSGVO/GDPR compliant, by students of the technical university Karlsruhe
    - Supports all popular operating systems and devices

Resources, 4

- Software-Links
    - **ooRexx 5.1.0** (beta, but stable, of release quality)
        - *https://sourceforge.net/projects/oorexx/files/oorexx/5.1.0beta/* e.g. pick 64-bit Windows: ooRexx-5.1.0-12859.windows.x86_64.exe
        - De-quarantine: open the file menu, check "Unblock" and press "Apply", *then* install
    - **Java 8 LTS** ("long term support") ***with* JavaFX**, e.g. (64-bit Windows)
        - *https://www.azul.com/core-post-download/?endpoint=zulu&uuid=6efe3fcc-422c-403c-8988-cfe70ba1c815*
    - **BSF4ooRexx850** (on that page, please read the directions in full)
        - *https://sourceforge.net/projects/bsf4oorexx/files/GA/BSF4ooRexx-850.20240304-GA/BSF4ooRexx_install_v850-20240707-refresh.zip*
        - De-quarantine: open the file menu, check "Unblock" and press "Apply", *then* unzip
        - Open/go to "bsf4oorexx/installation/windows" and double-click/run "install.cmd"
            - Works only if Java is present

Resources, 5

- Software-Links (continued)
  - **IntelliJ** development environment (by JetBrains)
    - Educational edition: *https://www.jetbrains.com/edu-products/download/*
    - Community edition: *https://www.jetbrains.com/idea/*
    - **ooRexx-Plugin for IntelliJ** (on that page, please read the directions in full)
      - https://sourceforge.net/projects/bsf4oorexx/files/Sandbox/aseik/ooRexxIDEA/GA/2.4.0/