Working with JAVA

i5/OS offers many solutions for JAVA programming. At this point "pure", classical way will be presented. "Pure" means programming via console, to see what is really going on.

It is good path to understand some specific dependencies and behaviors of system.
So, let us start, step by step.

Our sample will be famous and immortal "HelloWorld"

```
class jav_tst {
  public static void main(String[ ] args) {
  System.out.println("HelloWorld!");
  }
}
```

The path to create JAVA program is:

CRTSRCPF(*mylib/myfile*)   ;create Source Physical File
                                      ; *mylib* is your library name,
                                      ; myfile is just the name whatever you
                                      ; want, I suggest "javasrc"

STRPDM   ; start Programming Development
 -> 3 - work with members,   ; Manager, or

WRKMBRPDM {F4}   ; directly Work with Member using PDM
                                      ; specify *mylib* and *myfile,* press ENTER,
                                      ; then F6-create new member

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```
Source file ..........> myfile
Library ..............> mylib
Source member ........ myclass      ; name is not important at
                                    ; this point jet
Source type .......... TXT          ; type of member content
                                    ; should be TEXT
```

                                    ; ENTER
...   ; edit code*,* ENTER
                                    ; F3 to exit EDIT display,
                                    ; check "Y" nad ENTER to
                                    ; accept member creation

For compilation to be possible source code MUST be a stream file in the IFS, so we must copy it into a stream file

To do this correctly you must:

CHGCURDIR "/home"   **;change "current directory"**
CRTDIR "*your_user_profile name*"

CPYTOSTMF   **;Copy To Stream**
                                               ;File, press ;F4 before ENTER

```
--------------------------------------------------------------------------------------------
From database file member . . .
'/QSYS.LIB/mylib.LIB/myfile.FILE/myclass.MBR'        ; !look ant
                                                     ; qualifiers
To stream file ........
'/home/mydir/myjavaclass.java'
Stream file option ........ *REPLACE
Data conversion options ... *AUTO
Database file CCSID ....... *FILE
Stream file code page ..... 819
```

                   ; ! important: MUST be 819 : means ASCII
                   ;
                   : ! important: filename "*myjavaclass*" MUST be
                   ;   name of main class in java code

```
   --------------------------------------------------------------------------------------------
```

Or simple by typing:

CPYTOSTMF FROMMBR('qsys.lib/mylib.lib/myfile.file/myclass.mbr')
TOSTMF(mydir/myclass.java) STMFOPT(*REPLACE) STMFCODPAG(819)

```
--------------------------------------------------------------------------------------------
```

Next, in the command line:

CHGCURDIR "*your_user_profile name*"

QSH   **; start QSHELL**

JAVAC *myclass*.java

                                      ; if there is an error EXIT from
                                      ; QSHELL, start from command
                                      ; line WRKLNK, find *myclass*.java
                                      ; file check and correct it, or correct
                                      ; previous steps and tray again

JAVA *myclass*   ; ”He…

    End of exercise.

Note, that JAVA program can be created with overriding default system options with CRTJAVPGM too.

The presented is most simple and trivial way.
The system offers possibility to create JAVA system components, graphical applications and applications for Application Server.

It may be done also with supplied by IBM WebSphere Development Studio or Eclipse software.