PKG 01: INTEGRATED DEVELOPMENT ENVIRONMENT(IDE) INSTALLATION and HELLO WORLD

- IDE Installation
 - Official guides
 - Detailed guides
 - Free educational license

See File Manager/Tutorials/IntelliJ_Installation_Windows.pdf See File Manager/Tutorials/IntelliJ Installation macOS.pdf

- IDE Installation Help
 - Tutoring Sessions
 - Voluntary Tutoring Sessions

See tutoring.ducta.net

IntelliJ, Reformat Code

- Windows: Ctrl+Alt+L
- Linux: Ctrl+Alt+L

- macOS: \Rightarrow\tau_L (Cmd+Alt+L)

See File Manager/Tutorials/IntelliJ_KeyMap_ReferenceCard.pdf

IntelliJ Open in Explorer

How to locate the code file for assignment submission?

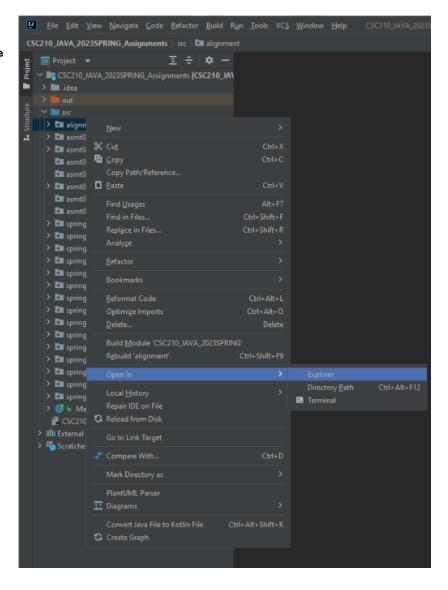
 Right-click on the package folder

Windows

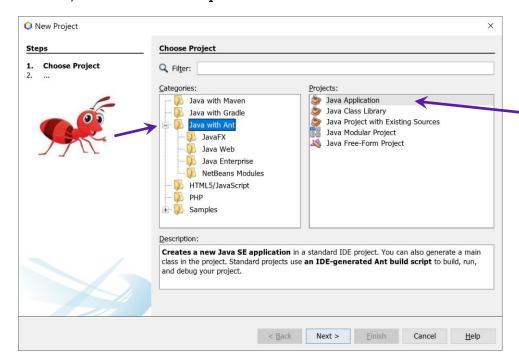
- Choose "Open In"
- Choose "Explorer" in the submenu

macOS

- Choose "Open In"
- Choose "Finder" in the submenu



ASNT 02, NetBeans IDE Requirements



The Assignment Report Template

- Why? And how are we doing?

See File Manager/Assignments/AssignmentReportTemplate/

No Late Submissions

- Adding the course?

See File Manager/Assignments/00-Guidelines for All Assignments.pdf

"Students who are attempting to add the course must complete all the required works as if they were officially enrolled."

The Documents/Materials to know inside out this week:

- 110 01. Course Canvas
- 111 02. File Manager (sfsu/student)
- 112 03. Hello, CSC 215: File Manager/01-HELLO_CSC210.pdf
- 113 04. QUESTIONS, Who to Contact: File Manager/02-QUESTIONS_WhoToContact.pdf
- 114 05. Student Handbook: https://handbook.ducta.net
- 115 06. DL Tabs: https://DL.ducta.net and Discussion Sections: https://discussion.ducta.net
- 116 07. ASMT Advising: File Manager/Assignments/Assignment-Advising.pdf
- 117 08. ASMT Canvas: File Manager/Assignments/Assignment-Canvas.pdf
- 118 09. ASMT 01: File Manager/Assignments/Assignment-01.pdf
- 119 10. Guidelines for All Assignments: File Manager/Assignments/00-Guidelines_for_All_Assignments.pdf
- 120 11. Assignment Report Template: File Manager/Assignments/AssignmentReportTemplate/index.php
- 121 12. Grader's Expectation: File Manager/Assignments/01-Graders_Grading_Expectations_and_Policies.pdf
- 122 13. Syllabus TA: File Manager
- 123 14. Syllabus DA: File Manager
- 124 15. Honor Code: File Manager /00-README-StudentConduct AcademicHonesty.pdf

```
125
     HELLO WORLD
126
127
128
     // ProjectHelloWorld.java
129
130
131
     package projecthelloworld;
132
133
     public class ProjectHelloWorld {
134
135
         public static void main(String[] args) {
136
             System.out.println("Hello World from SFSU!");
137
         }
138
     }
139
140
141
142
143
144
145
146
147
     HELLO WORLD
148
149
150
     // ProjectHelloWorld.java
151
     152
153
154
      * Program Header
155
156
      157
158
                                                           At Compile Time
159
                                            Source Code.java
                                                                           Byte Code
                                                             Complier
160
161
162
     package projecthelloworld;
163
     /**
164
                                            Native Machine
                                                                          JIT Compiler
      * @author Duc Ta
165
                                               Code
                                                           At Run Time
166
      */
                                                      Coding (vs. Debugging)
167
                                                     Compile Time/Compilation
168
     public class ProjectHelloWorld {
                                                Run time / Runtime / Execution time
169
170
         /**
171
          * Comment
172
          * @param args the command line arguments
173
          */
174
         public static void main(String[] args) {
175
             // Comment
176
             System.out.println("Hello World from SFSU!");
177
         }
178
     }
179
180
181
182
183
184
     References:
185
     - Style Doc: Assignments/CSC210 ProgrammingStyleDocumentationGuidelines.pdf
186
     - More Help: Assignments/Assignment-01 moreHelp/index.php
```

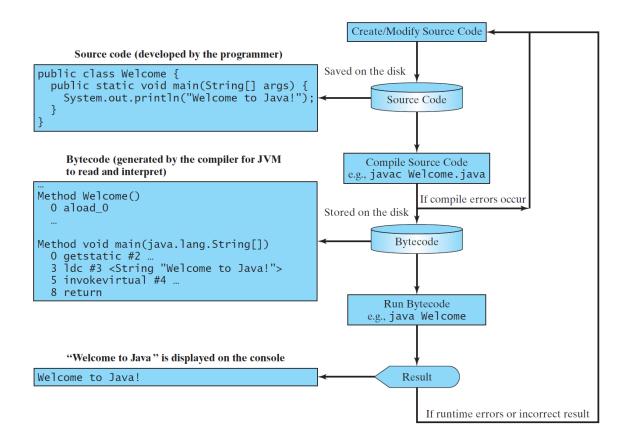
```
188
      HELLO print, println, printf, repeat
189
190
      // Print.java
191
192
      package pkg01;
193
194
      public class Print {
195
          public static void main(String[] args) {
                                                             /* OUTPUT:
196
              System.out.println("Ro");
                                                             Ro
197
              System.out.println("Sham");
                                                             Sham
198
              System.out.println("Bo");
                                                             Во
199
200
              System.out.print("Ro");
                                                             RoShamBo
201
              System.out.print("Sham");
                                                             Ro
202
              System.out.print("Bo");
                                                             Sham
203
                                                             Во
204
              System.out.println();
                                                             PointA
205
                                                             PointB
206
              System.out.print("Ro\nSham\nBo\n");
207
                                                              */
208
              System.out.println("PointA\nPointB");
209
          }
210
      }
211
212
213
                                          /* OUTPUT:
214
      // PrintRepeat.java
                                          [:-) [:-) [:-) [:-) [:-) [:-)
215
                                          [:-) [:-) [:-) [:-) [:-)
216
                                          [:-) [:-) [:-) [:-)
217
                                          [:-) [:-) [:-)
                                          [:-) [:-)
218
219
220
      package pkg01;
221
                                          */
222
      public class PrintRepeat {
223
          public static void main(String[] args) {
224
              System.out.println("[:-) ".repeat(10));
225
              System.out.println("[:-) ".repeat(8));
              System.out.println("[:-) ".repeat(6));
226
227
              System.out.println("[:-) ".repeat(4));
228
              System.out.println("[:-) ".repeat(2));
229
              System.out.println("[:-) ".repeat(0));
230
          }
231
      }
232
233
                                                            /* OUTPUT:
234
      // PrintPrintf
235
                                                            1234567890 1234567890
236
237
                                                            Taaa
                                                                        DAAAA!!!
238
                                                            27.12346
239
240
                                                             */
241
      package pkg01;
242
243
      public class Printf {
244
          public static void main(String[] args) {
245
              System.out.println("1234567890 1234567890");
246
              System.out.printf("%-10s %10S","Taaa","daaaa!!!");
247
              System.out.printf("%n%.5f",27.123456789);
248
          }
249
      }
250
```

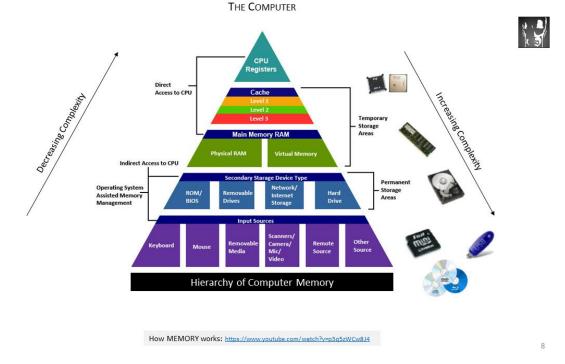
Computer Level Hierarchy

INTRODUCTION TO COMPUTER PROGRAMMING High 3. Users use human languages such as English 2. High-Level for (i=1; i <= 10; i++) {} 1. Low-level, Assembly Move #10, R0 Mixed 1. Low-level, Binary 0111010101010100 Mixed 1. Low-level, Binary 0111010101010100 O. Computer Hardware Level 1 Control Instruction Set Architecture Operating System. Library Code Or Hardwised Level 2 Machine Instruction Set Architecture Operating System. Library Code Or Hardwised Level 3 Control Instruction Set Architecture Operating System. Library Code Or Hardwised Level 4 Control Instruction Set Architecture Operating System. Library Code Or Hardwised Level 5 Circuits. Gates, etc.

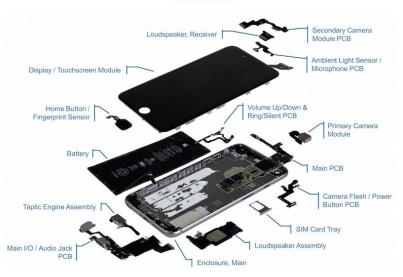
Duc Ta, SFSU 10

Programming Language Hierarchy





THE COMPUTER

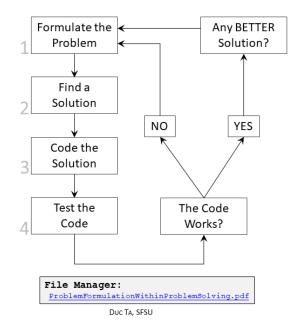






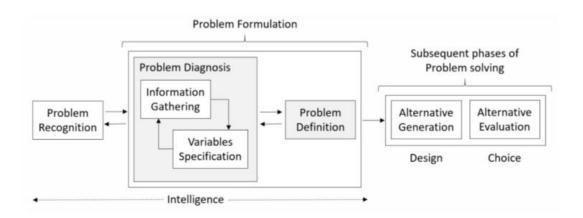
INTRODUCTION TO COMPUTER PROGRAMMING

The process of creating computer programs





Goals: Master Problem Solving Skills & Be Job-Ready



Formal Problem Formulation in the Development of Decision Support Systems,
Association for Information Systems (AIS), AIS Electronic Library (AISeL),
PACIS 1995 Proceedings, Pacific Asia Conference on Information Systems (PACISC), 12-31-1995

Goals: Master Problem Solving Skills & Be Job-Ready

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11 CREATIVE PROCESS in PROBLEM SOLVING

12

13 The SIX PHASES of the PRACTICAL CREATIVE PROCESS

14 --- The Path of The Everyday Hero (1991),

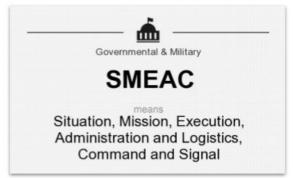
15 Lorna Ruth Catford, Michael Ray

16 1. PREPARATION 4. STRATEGIZING

17 2. FRUSTRATION 5. ILLUMINATION

18 3. INCUBATION 6. VERIFICATION
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