Name: Muhammad Arbain
Roll Number: 16-uglc-1029
Class: PPP-BSSE-7th
Subject: Software Engineering Economics
Submitted to: Ms. Madnia Ashraf

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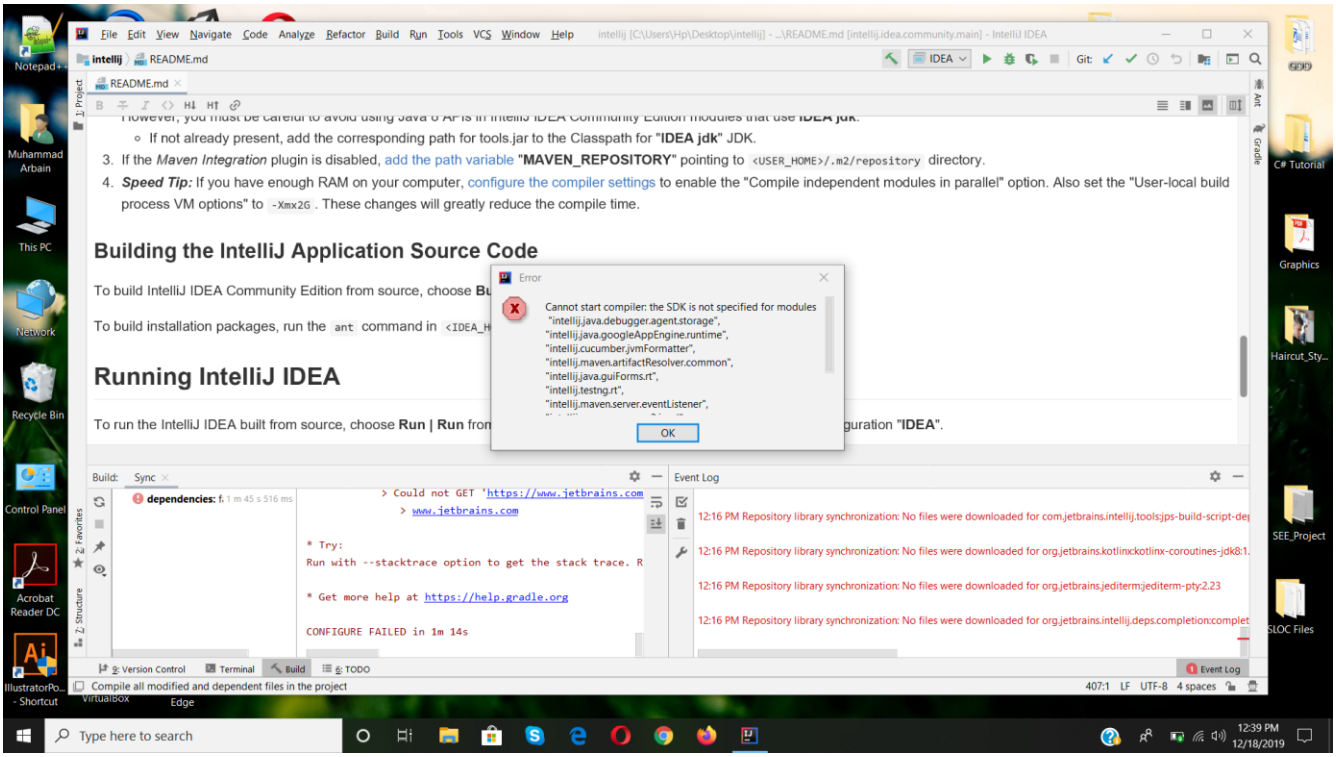
1. Download and Resources

Resource name	**Resource download link**
IntelliJ Idea community edition	https://www.jetbrains.com/idea/
Source code for the IntelliJ Idea	https://github.com/JetBrains/intellij-community
Code Line Counter	https://download.cnet.com/Code-Line-Counter/3000-2352_4-10841474.html
Count LOC	https://codetabs.com/count-loc/count-loc-online.html

2. Errors and Removal

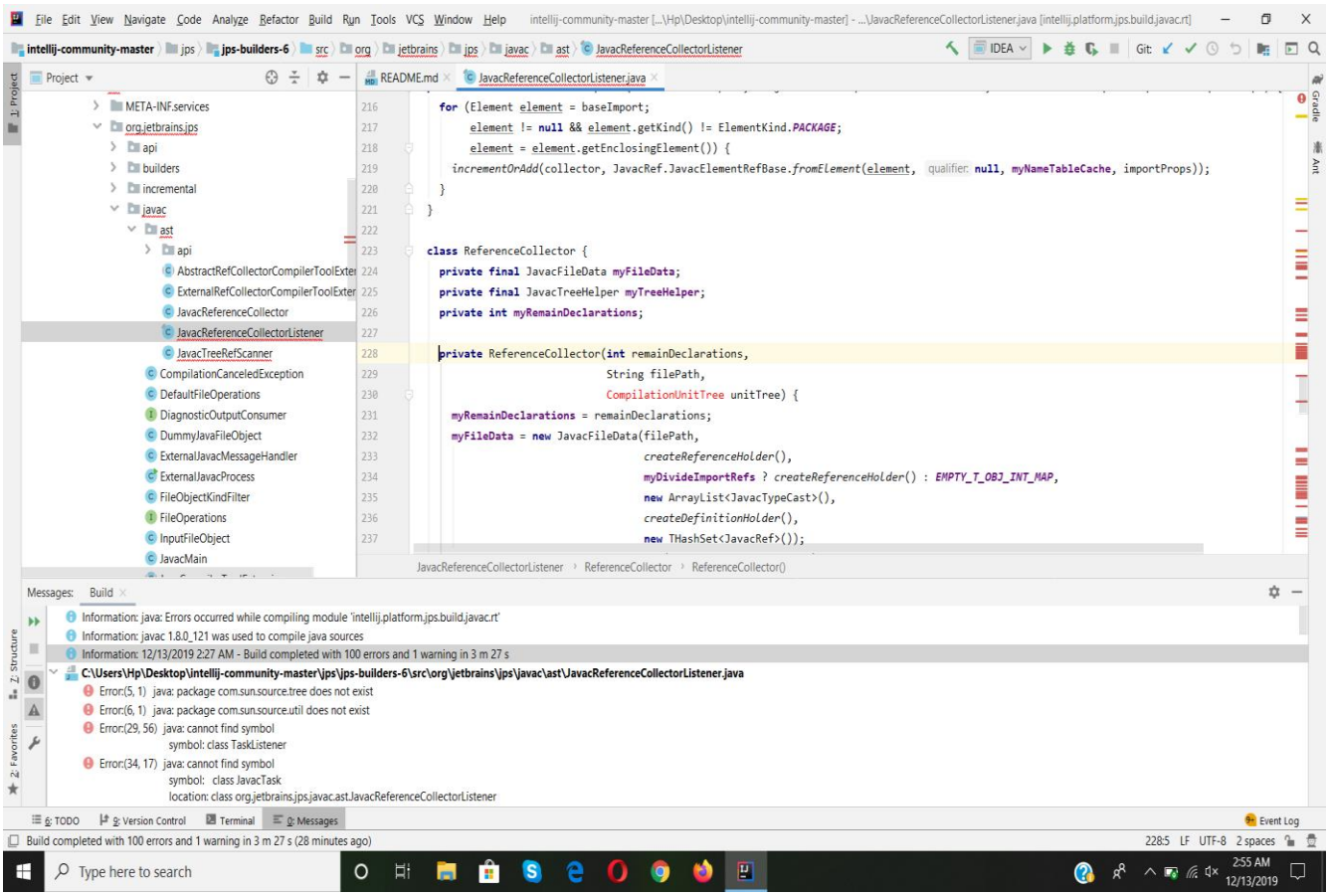
2.1 Java SDK Not Specify



Removal:

- After installation of IntelliJ Community Edition, Open source code in it
- When open then it gives following errors that show in above picture
- I solve it by specifying the java 1.8 sdk to all files of source code

2.2 Library Missing Error

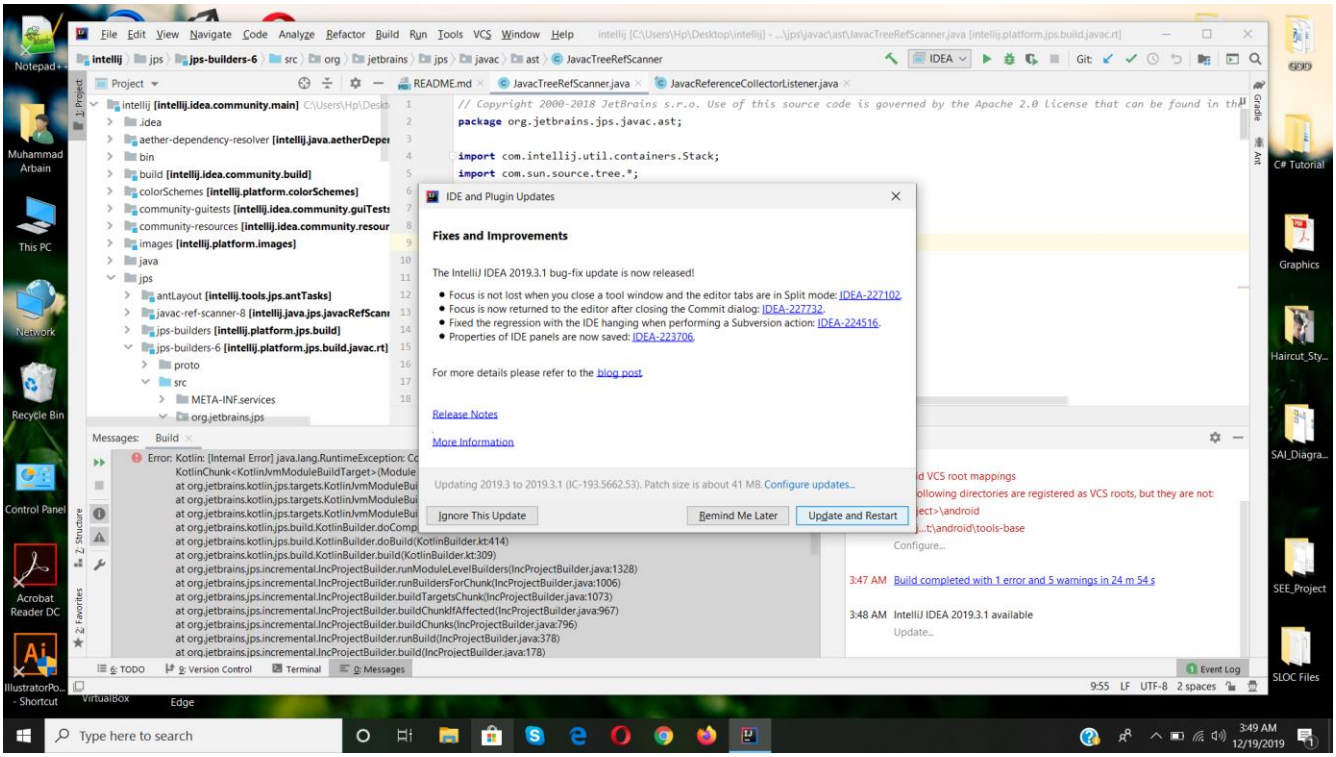


Removal:

- After solve sdk specifying errors, when I start build under IDEA then again errors are occur
- These errors due to missing **Tools.jar** library
- Then I add library in Sdk module from project structure under class path

2.3 Build Successfully

After solving all errors, I build new version 2019.3.1 and my previous version was 2019.2.4



3. Report of Effort & Schedule Calculation

3.1 SLOC

JAVA Files

Source: Code line Counter
7 loc

HTML Files

Source: https://codetabs.com/count-loc/count-loc-online.html
11778 loc

Json Files

Source: https://codetabs.com/count-loc/count-loc-online.html
128 loc

Template Files

Notepad++ (manual)

2576 loc

Text (API) Files

Source: https://codetabs.com/count-loc/count-loc-online.html
7934 loc

VM Files

Notepad++ (manual)

762 loc

XML Files

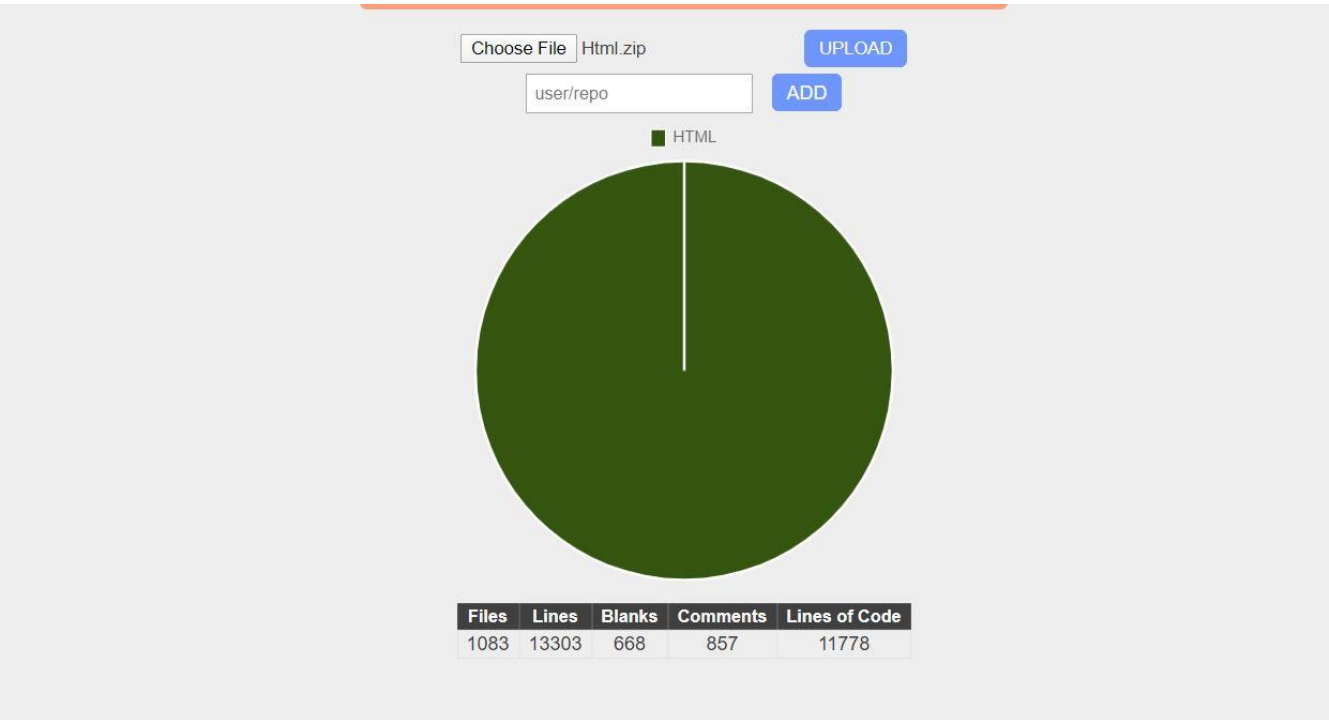
Source: https://codetabs.com/count-loc/count-loc-online.html

5044 loc

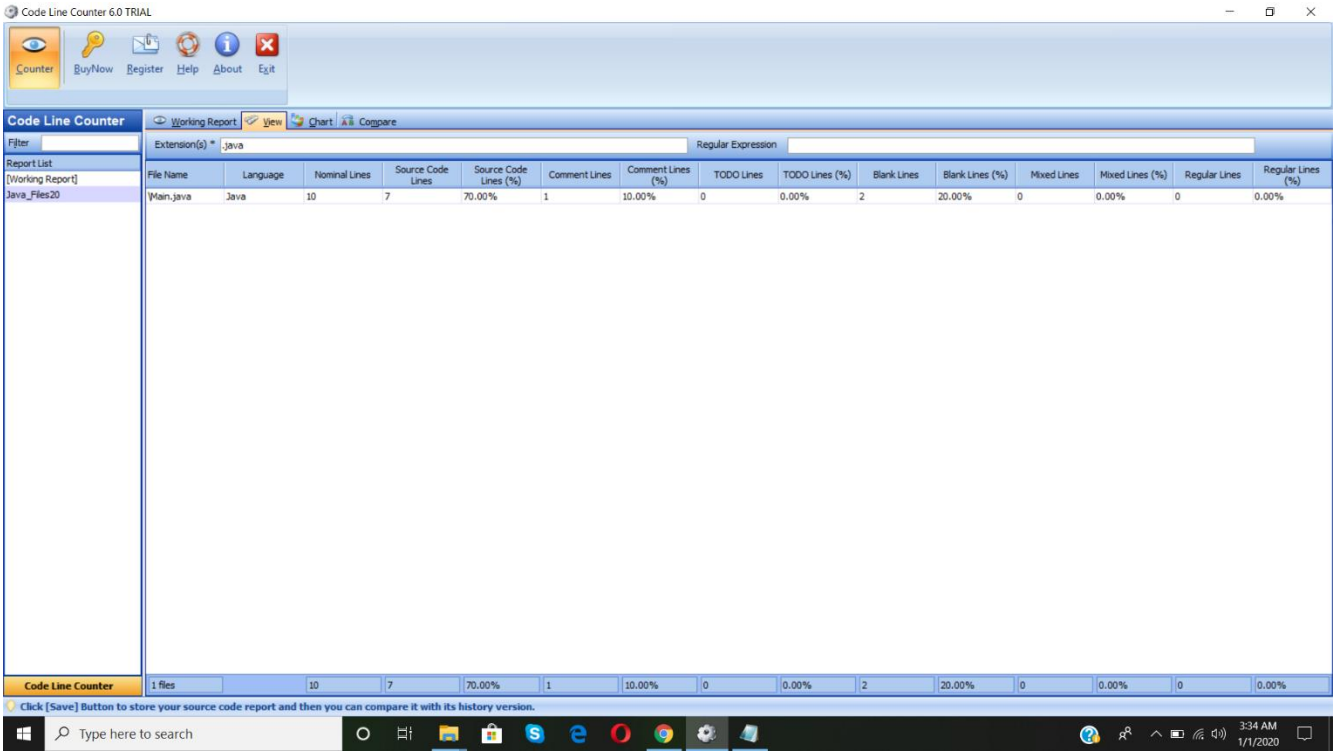
Total Loc

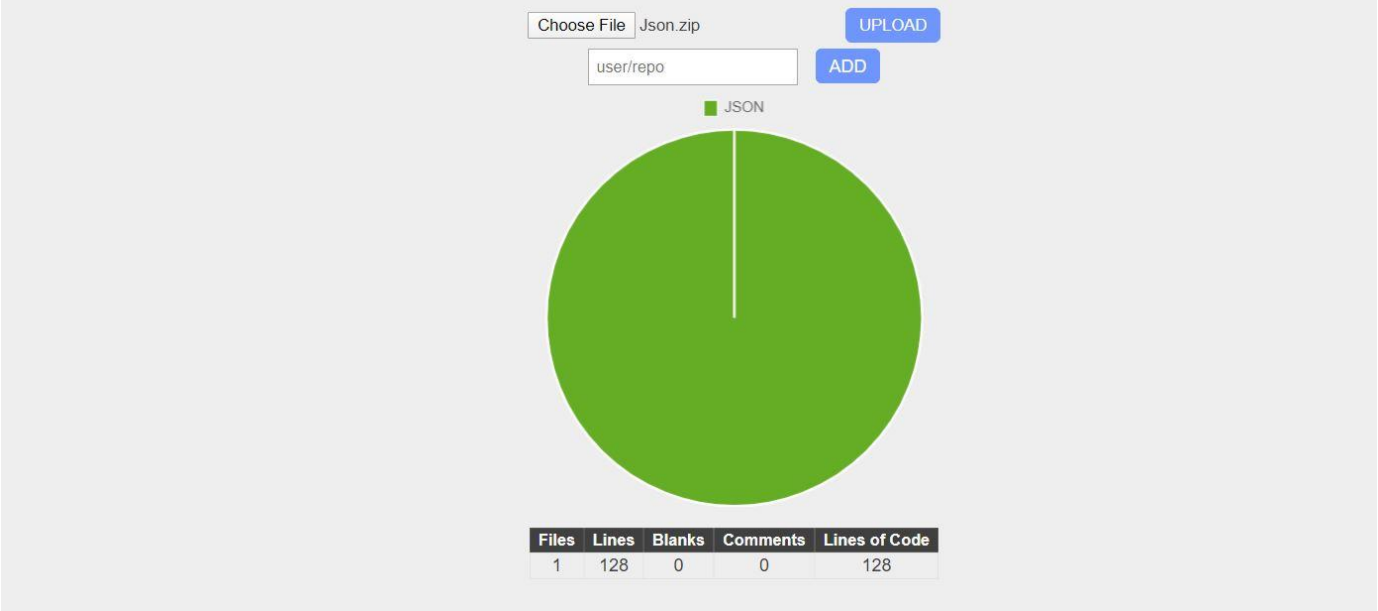
7+11778+128+2576+7934+762+5044= 28229 loc

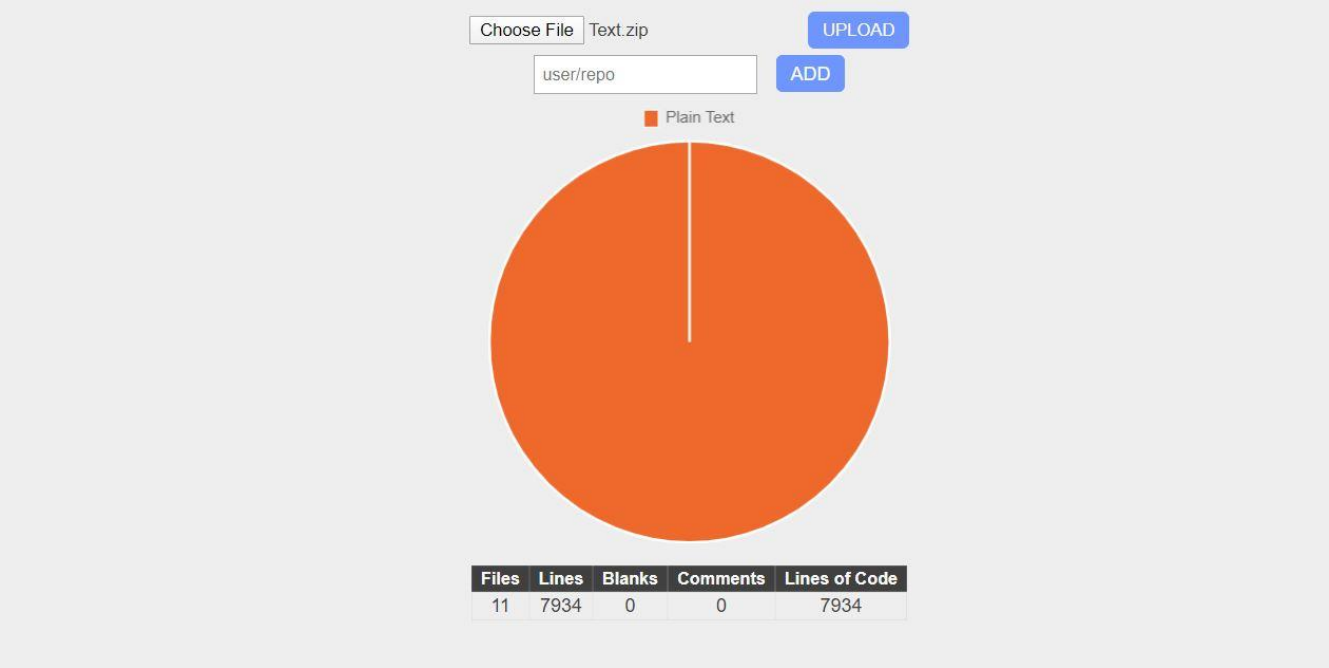
KLOC = 28.229 KLOC



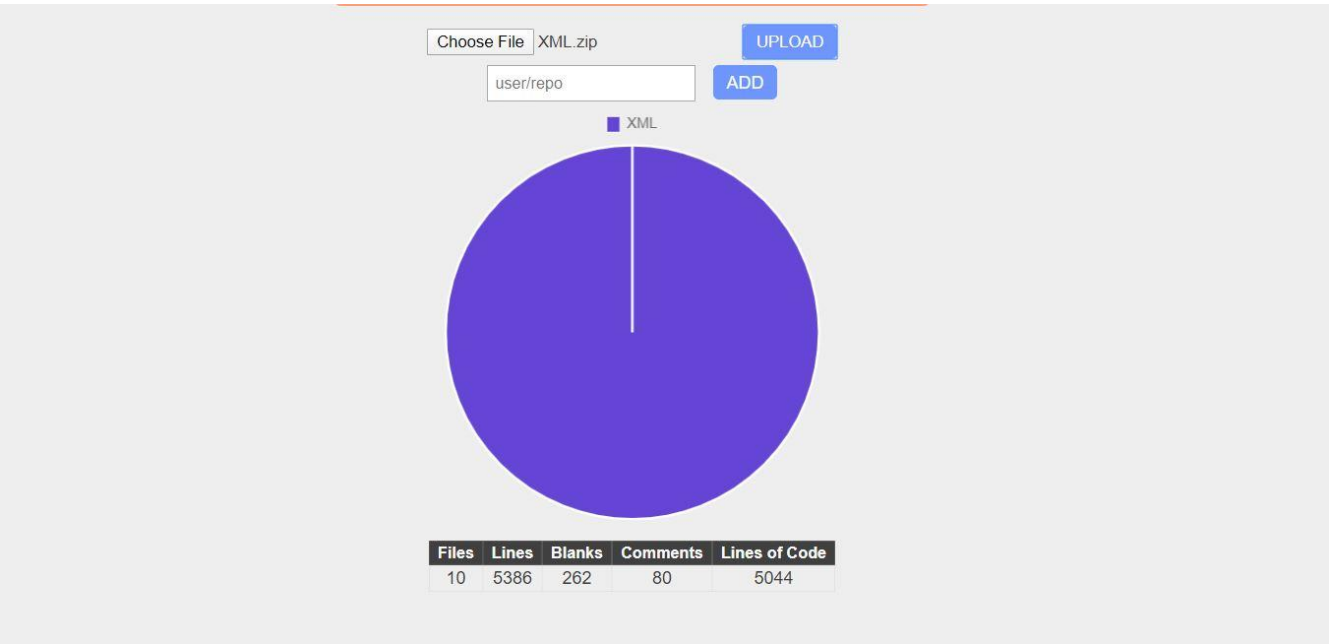
Files	Lines	Blanks	Comments	Lines of Code
1083	13303	668	857	11778


Code Line Counter 6.0 TRIAL
Counter
BuyNow
Register
Help
About
Exit
Code Line Counter
Working Report
View
Chart
Compare
Filter
Extension(s) *
.java
Regular Expression
Report List
[Working Report]
Java_Files20
File Name
Language
Nominal Lines
Source Code Lines
Source Code Lines (%)
Comment Lines
Comment Lines (%)
TODO Lines
TODO Lines (%)
Blank Lines
Blank Lines (%)
Mixed Lines
Mixed Lines (%)
Regular Lines
Regular Lines (%)
Main.java
Java
10
7
70.00%
1
10.00%
0
0.00%
2
20.00%
0
0.00%
0
0.00%
Code Line Counter
1 files
Click [Save] Button to store your source code report and then you can compare it with its history version.
Type here to search
3:34 AM
1/1/2020


Choose File
Json.zip
UPLOAD
user/repo
ADD
JSON
Files
Lines
Blanks
Comments
Lines of Code
1
128
0
0
128

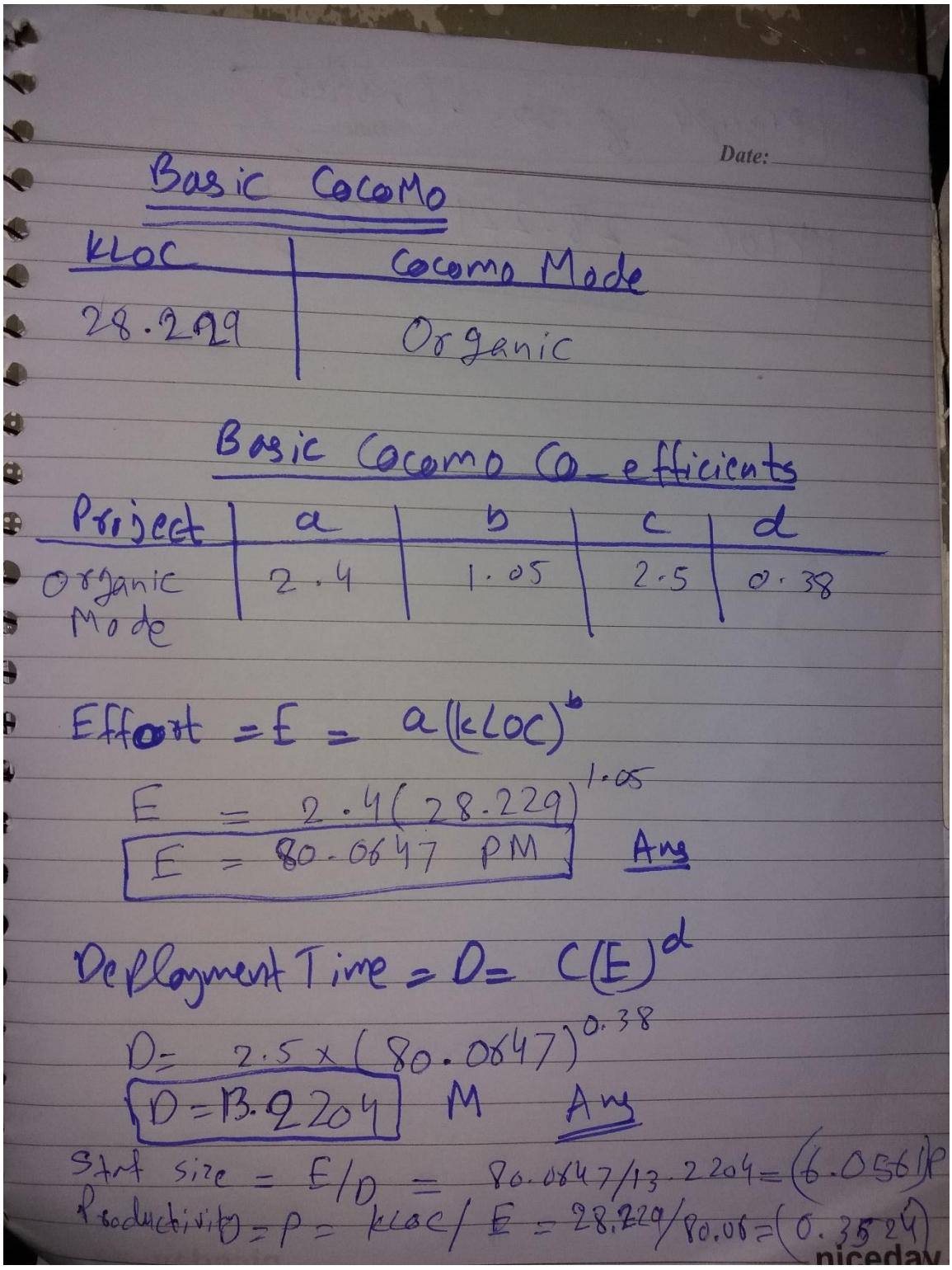


Files	Lines	Blanks	Comments	Lines of Code
11	7934	0	0	7934



Files	Lines	Blanks	Comments	Lines of Code
10	5386	262	80	5044

3.2 Basic COCOMO



Date:

Basic Cocomo

KLOC	Cocomo Mode
28.229	Organic

Basic Cocomo Co-efficients

Project	a	b	c	d
Organic Mode	2.4	1.05	2.5	0.38

Effort = E = $a(KLOC)^b$

$E = 2.4(28.229)^{1.05}$

E = 80.0647 PM Ans

Deployment Time = D = $C(E)^d$

$D = 2.5 \times (80.0647)^{0.38}$

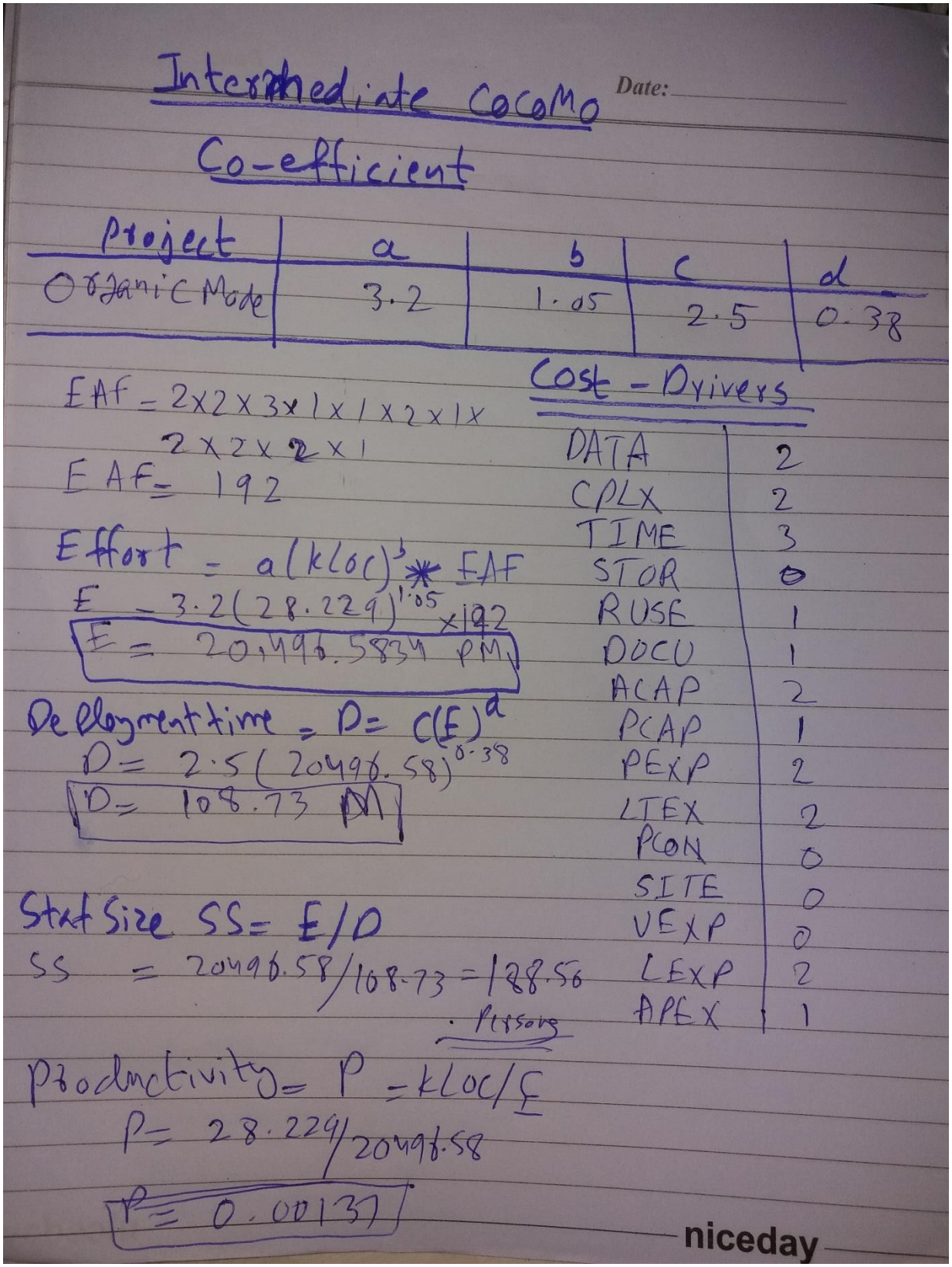
D = 13.2204 M Ans

Staff size = E/D = 80.0647/13.2204 = (6.056) P

Productivity = P = KLOC/E = 28.229/80.06 = (0.354)

niceday

3.3 Intermediate COCOMO



Intermediate cocomo Date:

Co-efficient

Project	a	b	c	d
Organic Mode	3.2	1.05	2.5	0.38

EAf = 2x2x3x1x1x2x1x 2x2x2x1

EAF = 192

Effort = a(kloc)^b * EAF

E = 3.2(28.229)$^{1.05}$ x192

E = 20,496.5834 PM

Deployment time = D = C(E)^d

D = 2.5(20496.58)$^{0.38}$

D = 108.73 PM

Staff Size SS = E/D

SS = 20496.58/108.73 = 188.56 Persons

Productivity = P = kLOC/E

P = 28.229/20496.58

P = 0.00137

Cost - Drivers

DATA	2
CPLX	2
TIME	3
STOR	0
RUSE	1
DOCU	1
ACAP	2
PCAP	1
PEXP	2
LTEX	2
PCON	0
SITE	0
VEXP	0
LEXP	2
APEX	1

niceday