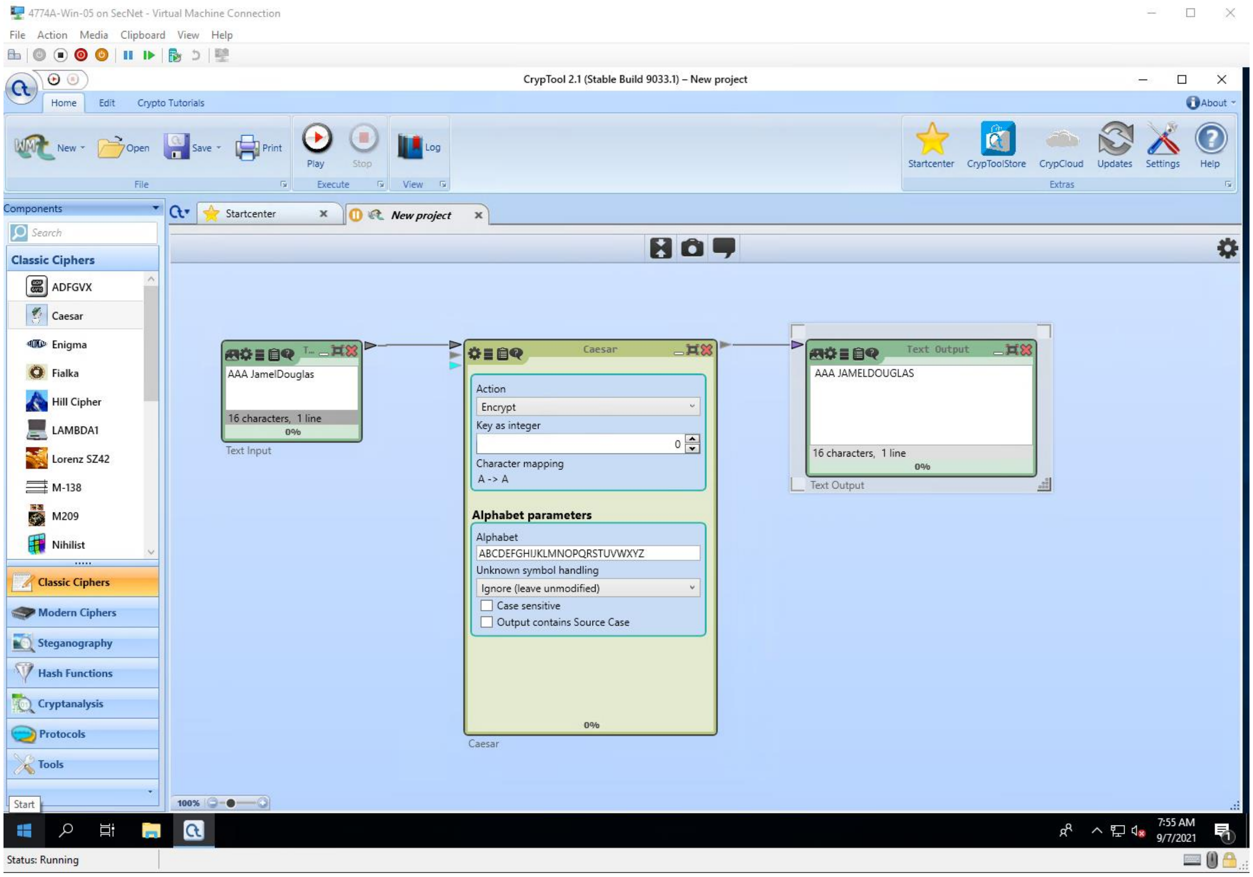
Jamel Douglas
JED18C
Lab 2 – Enigma & CrypTool
9/7/2021

16.6 CrypTool V2

Screenshots

Step 14



4774A-Win-05 on SecNet - Virtual Machine Connection

CrypTool 2.1 (Stable Build 9033.1) – New project

Text Input:
AAA JamelDouglas
16 characters, 1 line
0%

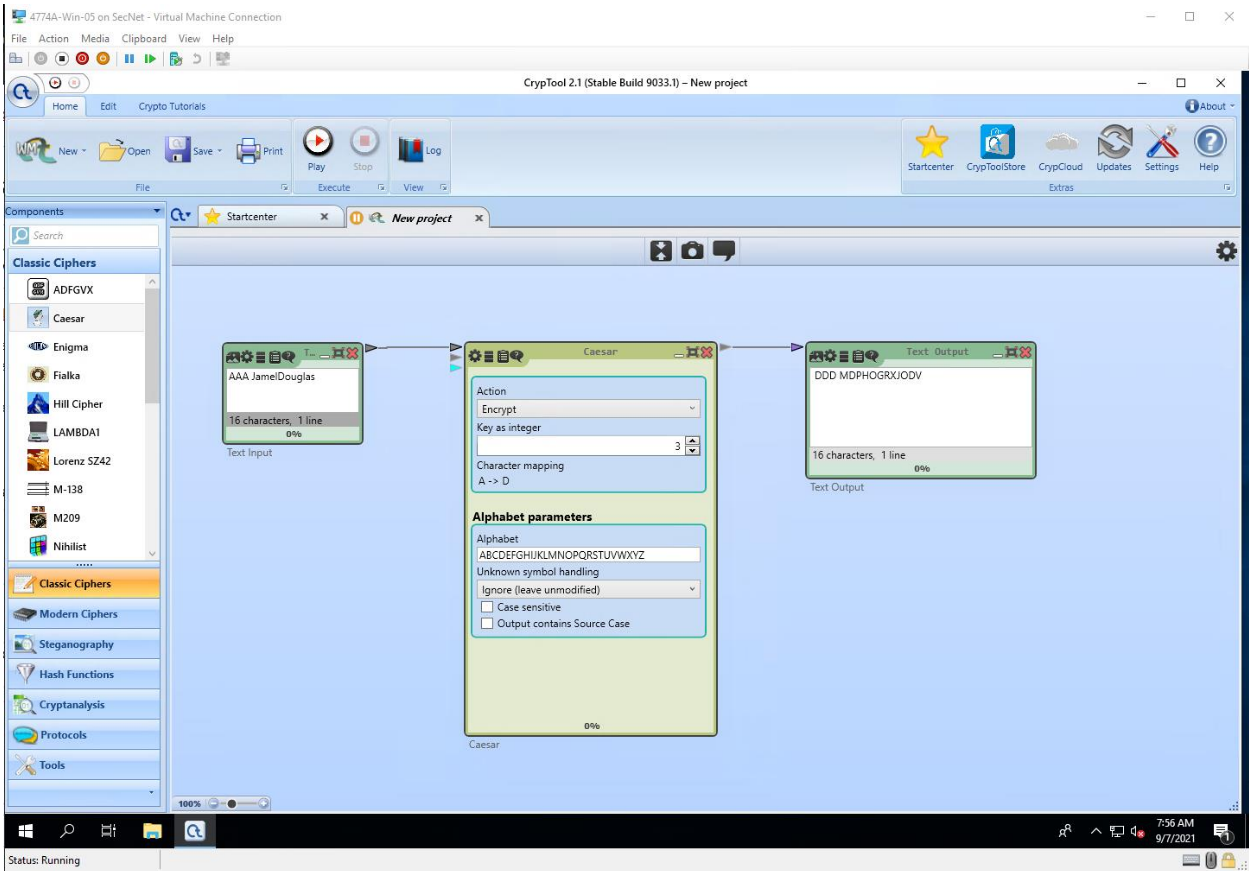
Caesar:
Action: Encrypt
Key as integer: 0
Character mapping: A -> A

Alphabet parameters
Alphabet: ABCDEFGHIJKLMNOPQRSTUVWXYZ
Unknown symbol handling: Ignore (leave unmodified)
□ Case sensitive
□ Output contains Source Case
0%

Text Output:
AAA JAMELDOUGLAS
16 characters, 1 line
0%

Status: Running

Step 17



Text Input

AAA JamelDouglas

16 characters, 1 line

0%

Caesar

Action: Encrypt

Key as integer: 3

Character mapping: A -> D

Alphabet parameters

Alphabet: ABCDEFGHIJKLMNOPQRSTUVWXYZ

Unknown symbol handling: Ignore (leave unmodified)

□ Case sensitive

□ Output contains Source Case

0%

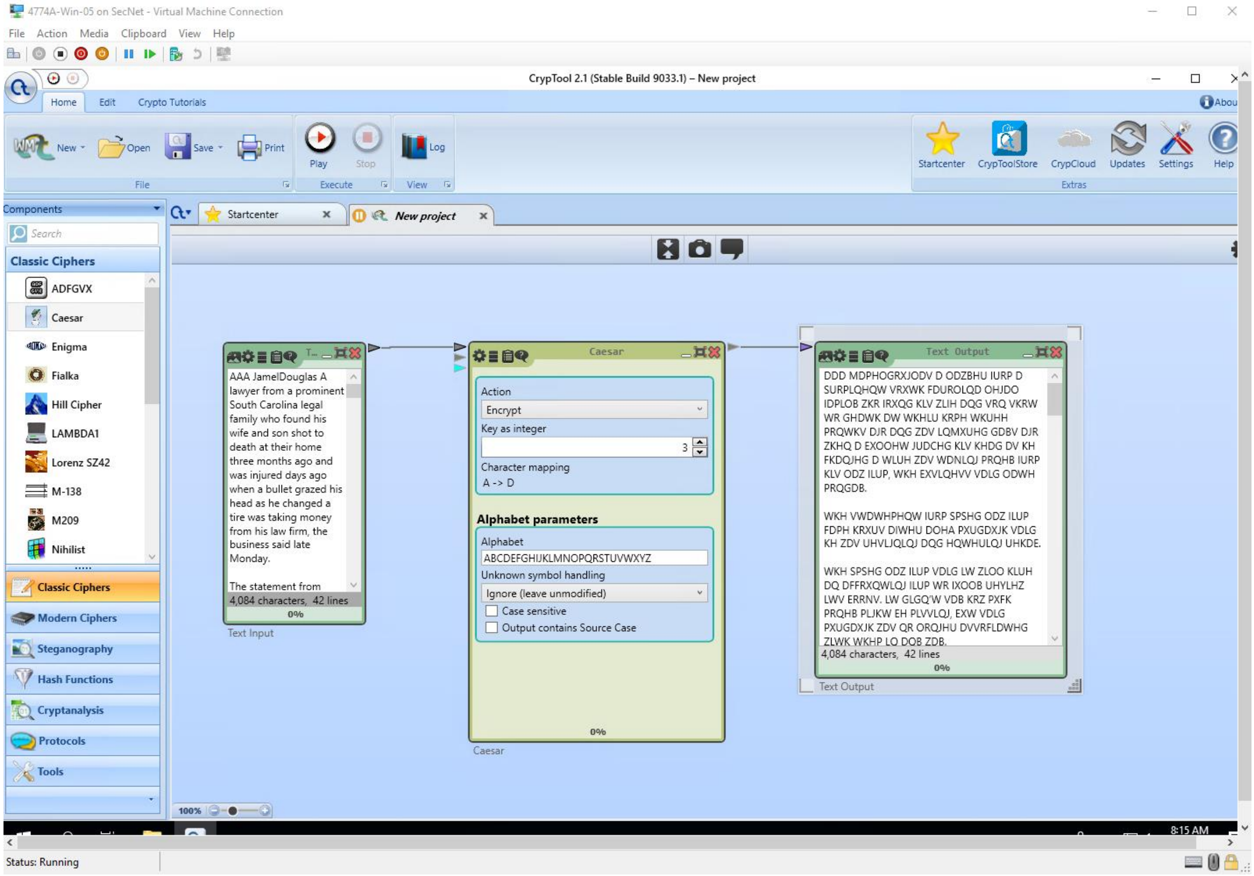
Text Output

DDD MDPHOGRXJODV

16 characters, 1 line

0%

Step 25



Text Input

```
AAA JamelDouglas A
lawyer from a prominent
South Carolina legal
family who found his
wife and son shot to
death at their home
three months ago and
was injured days ago
when a bullet grazed his
head as he changed a
tire was taking money
from his law firm, the
business said late
Monday.

The statement from
```

4,084 characters, 42 lines

0%

Caesar

Action: Encrypt

Key as integer: 3

Character mapping: A -> D

Alphabet parameters

Alphabet: ABCDEFGHIJKLMNOPQRSTUVWXYZ

Unknown symbol handling: Ignore (leave unmodified)

☐ Case sensitive

☐ Output contains Source Case

0%

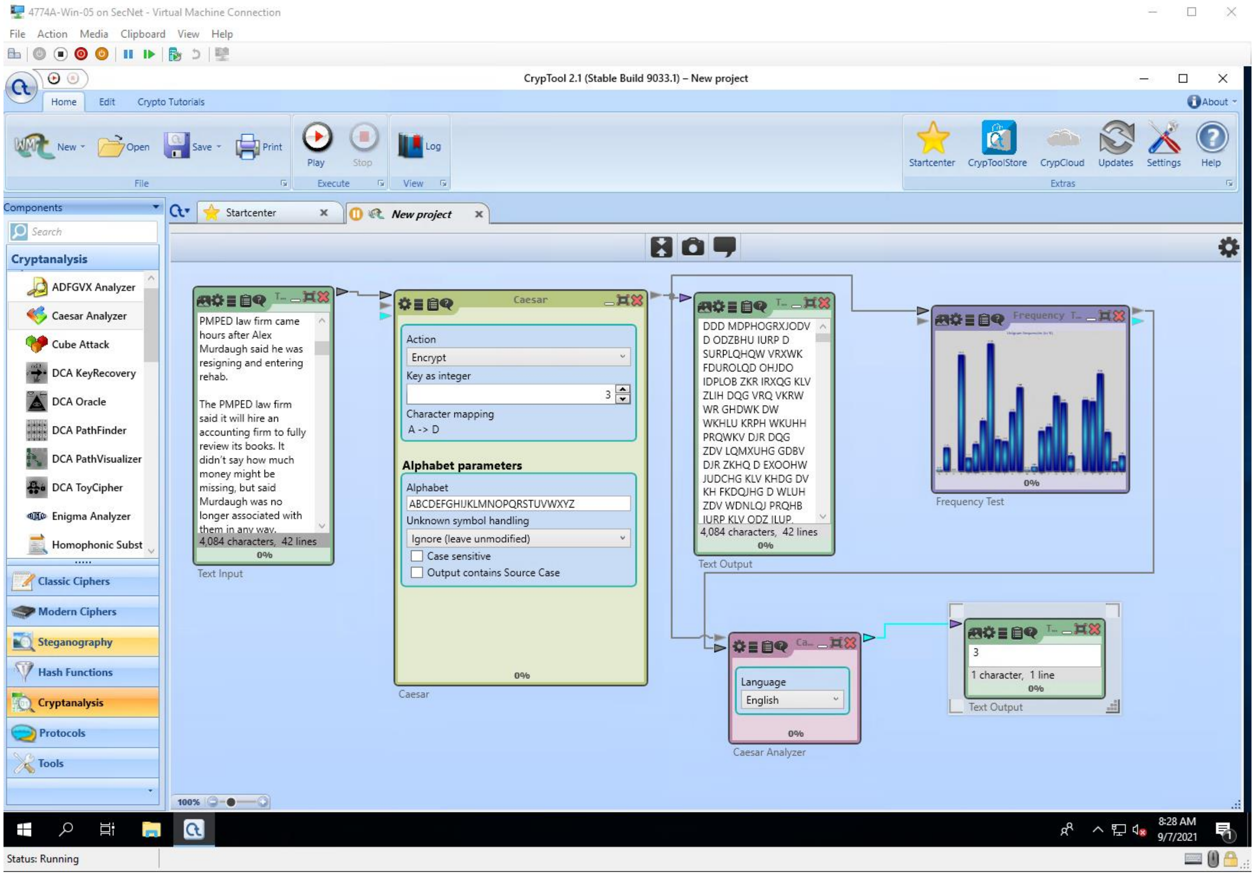
Text Output

```
DDD MDPHOGRXJODV D ODZBHU IURP D
SURPLQHQW VRXWK FDUROLQD OHJDO
IDPLOB ZKR IRXQG KLV ZLIH DQG VRQ VKRW
WR GHDWK DW WKHLU KRPH WKUHH
PRQWKV DJR DQG ZDV LQMXUHG GDBV DJR
ZKHQ D EXOOHW JUDCHG KLV KHDG DV KH
FKDQJHG D WLUH ZDV WDNLQJ PRQHB IURP
KLV ODZ ILUP, WKH EXVLQHVV VDLG ODWH
PRQGDB.

WKH VWDWHPHQW IURP SPSHG ODZ ILUP
FDPH KRXUV DIWHU DOHA PXUGDXJK VDLG
KH ZDV UHVLJQLQJ DQG HQWHULQJ UHKDE.

WKH SPSHG ODZ ILUP VDLG LW ZLOO KLUH
DQ DFFRXQWLQJ ILUP WR IXOOB UHYLHZ
LWV ERRNV. LW GLGQ'W VDB KRZ PXFK
PRQHB PLJKW EH PLVVLQJ, EXW VDLG
PXUGDXJK ZDV QR ORQJHU DVVRFLDWHG
ZLWK WKHP LQ DQB ZDB.
```

4,084 characters, 42 lines

0%

Step 40



Text Input:

PMPED law firm came hours after Alex Murdaugh said he was resigning and entering rehab.

The PMPED law firm said it will hire an accounting firm to fully review its books. It didn't say how much money might be missing, but said Murdaugh was no longer associated with them in any way.

4,084 characters, 42 lines
0%

Caesar

Action
Encrypt

Key as integer
3

Character mapping
A -> D

Alphabet parameters

Alphabet
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Unknown symbol handling
Ignore (leave unmodified)

□ Case sensitive
□ Output contains Source Case

0%

Text Output:

```
DDD MDPHOGRXJODV
D ODZBHU IURP D
SURPLQHQW VRXWK
FDUROLQD OHJDO
IDPLOB ZKR IRXQG KLV
ZLIH DQG VRQ VKRW
WR GHDWK DW
WKHLU KRPH WKUHH
PRQWKV DJR DQG
ZDV LQMXUHG GDBV
DJR ZKHQ D EXOOHW
JUDCHG KLV KHDG DV
KH FKDQJHG D WLUH
ZDV WDNLQJ PRQHB
IURP KLV ODZ ILUP.
```

4,084 characters, 42 lines
0%

Caesar Analyzer

Language
English

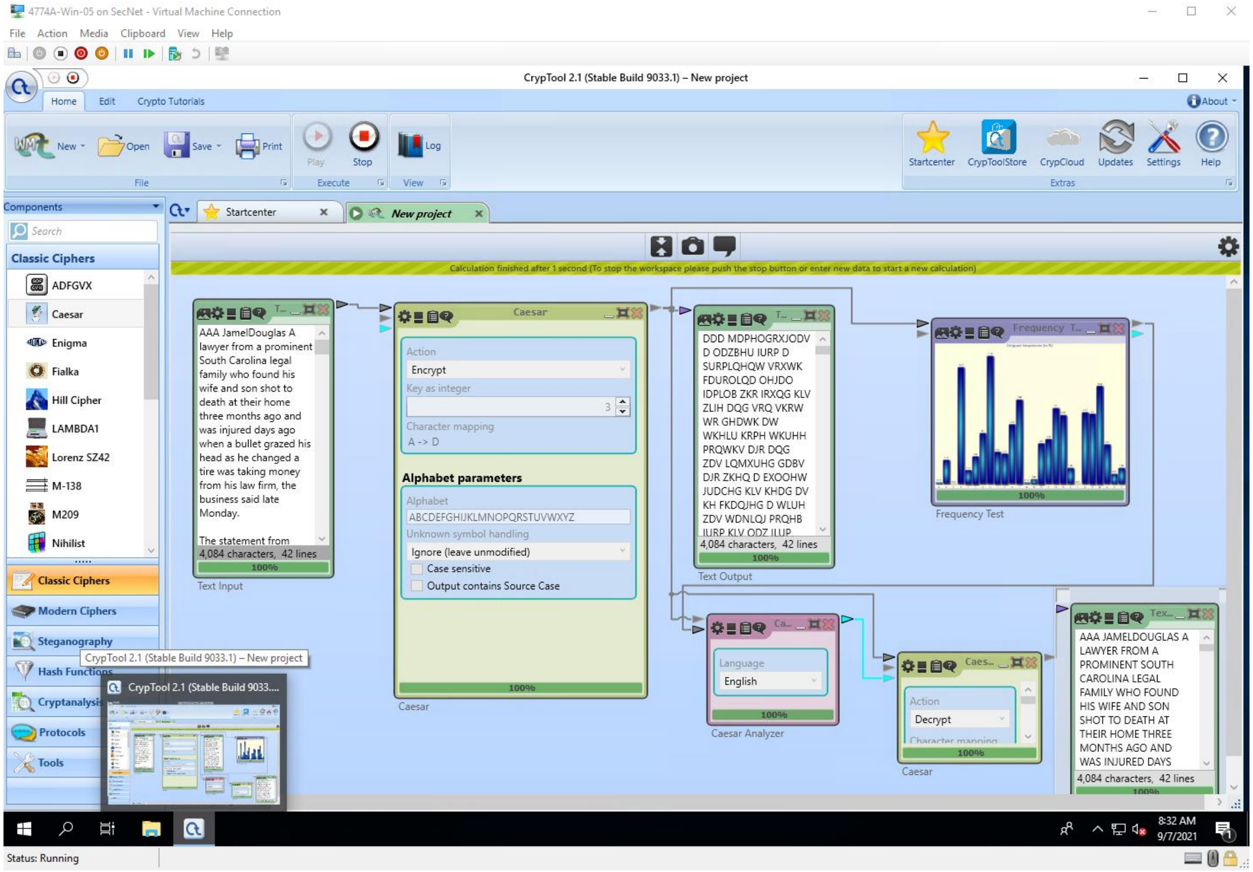
0%

Text Output:

3

1 character, 1 line
0%

Step 52



CrypTool 2.1 (Stable Build 9033.1) – New project

Calculation finished after 1 second (To stop the workspace please push the stop button or enter new data to start a new calculation)

Text Input:

```
AAA JamelDouglas A
lawyer from a prominent
South Carolina legal
family who found his
wife and son shot to
death at their home
three months ago and
was injured days ago
when a bullet grazed his
head as he changed a
tire was taking money
from his law firm, the
business said late
Monday.

The statement from
4,084 characters,  42 lines
```

Caesar:

- Action: Encrypt
- Key as integer: 3
- Character mapping: A -> D

Alphabet parameters

- Alphabet: ABCDEFGHIJKLMNOPQRSTUVWXYZ
- Unknown symbol handling: Ignore (leave unmodified)
- □ Case sensitive
- □ Output contains Source Case

Text Output:

```
DDD MDPHOGRXJODV
D ODZBHU IURP D
SURPLQHQW VRXWK
FDUROLQD OHJDO
IDPLOB ZKR IRXQG KLV
ZLIH DQG VRQ VKRW
WR GHDWK DW
WKHLU KRPH WKUHH
PRQWKV DJR DQG
ZDV LQMXUHG GDBV
DJR ZKHQ D EXOOHW
JUDCHG KLV KHDG DV
KH FKDQJHG D WLUH
ZDV WDNLQJ PRQHB
IURP KLV ODZ ILUP
4,084 characters,  42 lines
```

Frequency Test

Caesar Analyzer:

- Language: English

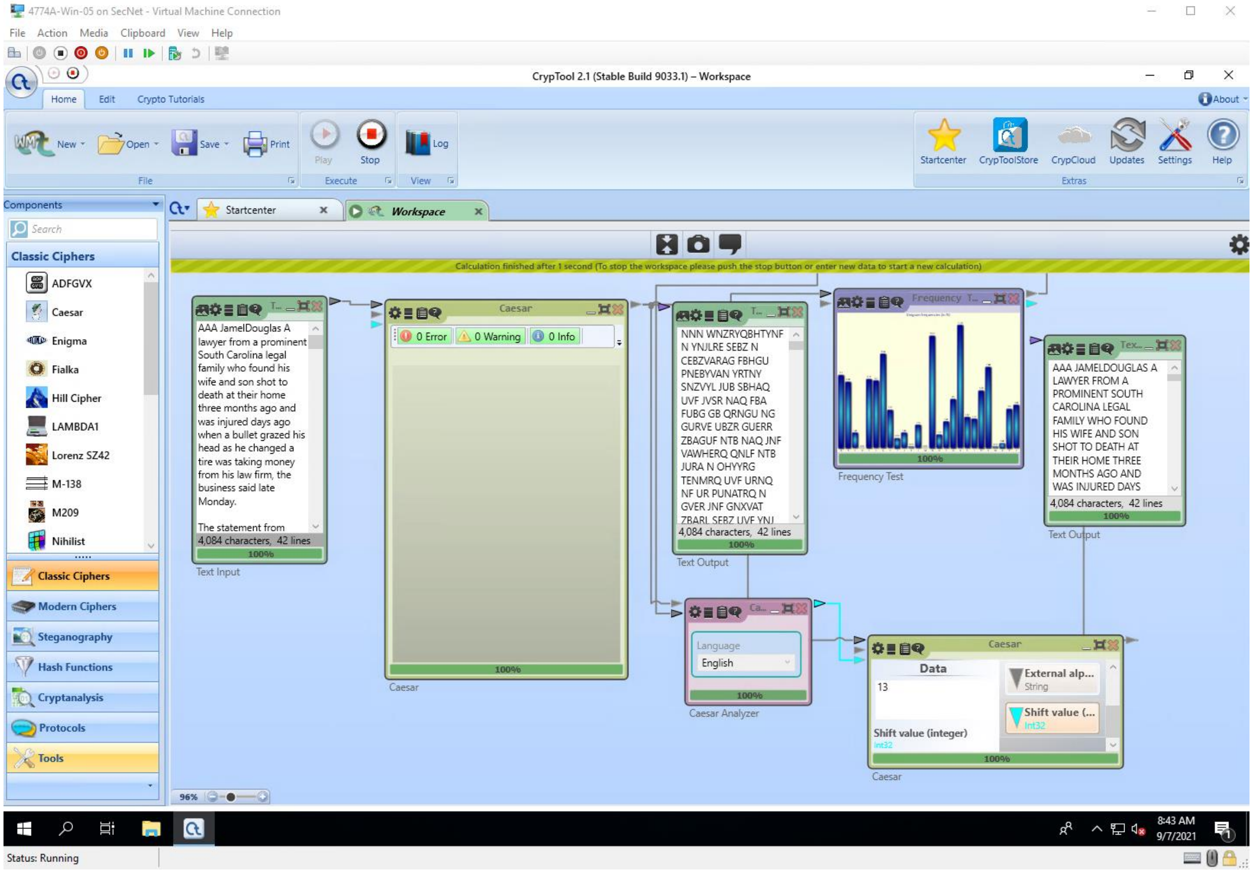
Caesar:

- Action: Decrypt

Text Output:

```
AAA JAMELDOUGLAS A
LAWYER FROM A
PROMINENT SOUTH
CAROLINA LEGAL
FAMILY WHO FOUND
HIS WIFE AND SON
SHOT TO DEATH AT
THEIR HOME THREE
MONTHS AGO AND
WAS INJURED DAYS
4,084 characters,  42 lines
```

Step 57



Calculation finished after 1 second (To stop the workspace please push the stop button or enter new data to start a new calculation)

Text Input:

AAA JamelDouglas A lawyer from a prominent South Carolina legal family who found his wife and son shot to death at their home three months ago and was injured days ago when a bullet grazed his head as he changed a tire was taking money from his law firm, the business said late Monday.

The statement from

4,084 characters, 42 lines

100%

Caesar:

0 Error 0 Warning 0 Info

100%

Text Output:

NNN WNZRYQBHTYNF N YNJLRE SEBZ N CEBZVARAG FBHGU PNEBYVAN YRTNY SNZVYL JUB SBHAQ UVF JVSR NAQ FBA FUBG GB QRNGU NG GURVE UBZR GUERR ZBAGUF NTB NAQ JNF VAWHERQ QNLF NTB JURA N OHYYRG TENMRQ UVF URNQ NF UR PUNATRQ N GVER JNF GNXVAT ZBARL SEBZ UVF YNJ

4,084 characters, 42 lines

100%

Frequency Test

100%

Text Output:

AAA JAMELDOUGLAS A LAWYER FROM A PROMINENT SOUTH CAROLINA LEGAL FAMILY WHO FOUND HIS WIFE AND SON SHOT TO DEATH AT THEIR HOME THREE MONTHS AGO AND WAS INJURED DAYS

4,084 characters, 42 lines

100%

Caesar Analyzer:

Language: English

100%

Caesar:

Data

13

Shift value (integer)
Int32

External alp... String

Shift value (... Int32

100%

Project Questions

1. My random key value was 13
2. My name shifted 3 times is MDPHO GPXJODV
3. The percent frequency for the letter H was 3.52%
4. The lowest percent frequency on my chart was 0.03. This correlated with letters D and M

Thought Questions

1. Caesar shift only shifts the “value” by a certain amount. If you match up the frequencies of letters in the ciphertext to frequencies of how letters are used, you can somewhat visualize the shift.
2. I think that A, I, O, U, and Y are other letters that are common in the English language. These letters are vowels
3. Caesar shift would not be considered a secure method of encryption because it can be easily cracked with a frequency analysis, as proven in this lab.
4. It is possible to try all the Caesar shifts in English because there are only 25 different ways the alphabet can be shifted.