

```

/**
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 * @Course: 95-771 Data Structures and Algorithms for Information
Processing
 * @Assignment_Number: Project 1 - Part 2
 */

```

## Output 1 – Main.java

### Screenshot

```

"C:\Program Files\Eclipse Adoptium\jdk-17.0.4-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2022.2.1\lib\idea_rt
Enter a string and I will encrypt it as single large integer: Welcome to Data Structures and Algorithms
Clear text: Welcome to Data Structures and Algorithms
Number of clear text bytes = 41
Welcome to Data Structures and Algorithms is encrypted as
17796443115358439060825236935274419267037152327429111710733979511999126491467955
7542547964597440184969886461136778553039855981433188579981504777666839291442080
92282246443649547570202928911792288094340984297587961316413575780693568378784354
18421783220992424553236975961524329241
Result of decryption: Welcome to Data Structures and Algorithms
Process finished with exit code 0

```

### Actual Output

Enter a string and I will encrypt it as single large integer: Welcome to Data Structures and Algorithms

Clear text: Welcome to Data Structures and Algorithms

Number of clear text bytes = 41

Welcome to Data Structures and Algorithms is encrypted as

17796443115358439060825236935274419267037152327429111710733979511999126491467955  
7542547964597440184969886461136778553039855981433188579981504777666839291442080  
92282246443649547570202928911792288094340984297587961316413575780693568378784354  
18421783220992424553236975961524329241

Result of decryption: Welcome to Data Structures and Algorithms

## Output 2 – Main.java

### Screenshot

```
"C:\Program Files\Eclipse Adoptium\jdk-17.0.4-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2022.2.1\lib\idea_rt.
Enter a string and I will encrypt it as single large integer: Welcome to Data Structures and AlgorithmsWelcome to Data Structures and Algorithms
Clear text: Welcome to Data Structures and AlgorithmsWelcome to Data Structures and Algorithms
Number of clear text bytes = 82
The string entered is too long. Please enter a shorter string: Welcome to Data Structures and Algorithms
Clear text: Welcome to Data Structures and Algorithms
Number of clear text bytes = 41
Welcome to Data Structures and Algorithms is encrypted as
17796443115358439060825236935274419267037152327429111710733979511999126491467955754254796459744018496988646113677855303985598143318857998150477766
Result of decryption: Welcome to Data Structures and Algorithms

Process finished with exit code 0
```

### Actual Output

Enter a string and I will encrypt it as single large integer: Welcome to Data Structures and AlgorithmsWelcome to Data Structures and Algorithms

Clear text: Welcome to Data Structures and AlgorithmsWelcome to Data Structures and Algorithms

Number of clear text bytes = 82

The string entered is too long. Please enter a shorter string: Welcome to Data Structures and Algorithms

Clear text: Welcome to Data Structures and Algorithms

Number of clear text bytes = 41

Welcome to Data Structures and Algorithms is encrypted as

17796443115358439060825236935274419267037152327429111710733979511999126491467955  
75425479645974401849698864611367785530398559814331885799815047776666839291442080  
92282246443649547570202928911792288094340984297587961316413575780693568378784354  
18421783220992424553236975961524329241

Result of decryption: Welcome to Data Structures and Algorithms

## Output 3 – Main.java

### Screenshot

```
"C:\Program Files\Eclipse Adoptium\jdk-17.0.4-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2022.2.1\lib\idea_rt.
Enter a string and I will encrypt it as single large integer: Super secret text to destroy the world!
Clear text: Super secret text to destroy the world!
Number of clear text bytes = 39
Super secret text to destroy the world! is encrypted as
46839723780100234465370489017122056806253882222731796802296737231787881796534332
76750239911172560728506281396468697881046142330228969941825977460279584631739636
59697327767114189583618089304853207531121276519636985308138086035148945331380244
389866192386240478974182
Result of decryption: Super secret text to destroy the world!
```

### Actual Output

Enter a string and I will encrypt it as single large integer: Super secret text to destroy the world!

Clear text: Super secret text to destroy the world!

Number of clear text bytes = 39

Super secret text to destroy the world! is encrypted as

46839723780100234465370489017122056806253882222731796802296737231787881796534332  
76750239911172560728506281396468697881046142330228969941825977460279584631739636  
59697327767114189583618089304853207531121276519636985308138086035148945331380244  
389866192386240478974182

Result of decryption: Super secret text to destroy the world!

## Output 4 – Main.java

### Screenshot

```
"C:\Program Files\Eclipse Adoptium\jdk-17.0.4-hotspot\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2022.2.1\lib\idea_rt.jar"
Enter a string and I will encrypt it as single large integer: Super secret text to destroy the world, but it is too long for the code to encrypt!
Clear text: Super secret text to destroy the world, but it is too long for the code to encrypt!
Number of clear text bytes = 83
The string entered is too long. Please enter a shorter string: So, I made the super secret text a bit shorter :)
Clear text: So, I made the super secret text a bit shorter :)
Number of clear text bytes = 49
So, I made the super secret text a bit shorter :) is encrypted as
19042404372245343449522565596891853629218586850252577466293870878212890057878626483773588117955295550127034080322096733378081724701913171101389263590366038420934545610054952132133392378150240329551763657009265146544851048341855440990939351461361087345524679696341030723705869973753636961259078250957965191505024496127418918190321791
Result of decryption: So, I made the super secret text a bit shorter :)
Process finished with exit code 0
```

### Actual Output

Enter a string and I will encrypt it as single large integer: Super secret text to destroy the world, but it is too long for the code to encrypt!

Clear text: Super secret text to destroy the world, but it is too long for the code to encrypt!

Number of clear text bytes = 83

The string entered is too long. Please enter a shorter string: So, I made the super secret text a bit shorter :)

Clear text: So, I made the super secret text a bit shorter :)

Number of clear text bytes = 49

So, I made the super secret text a bit shorter :) is encrypted as

19042404372245343449522565596891853629218586850252577466293870878212890057878626483773588117955295550127034080322096733378081724701913171101389263590366038420934545610054952132133392378150240329551763657009265146544851048341855440990939351461361087345524679696341030723705869973753636961259078250957965191505024496127418918190321791

Result of decryption: So, I made the super secret text a bit shorter :)