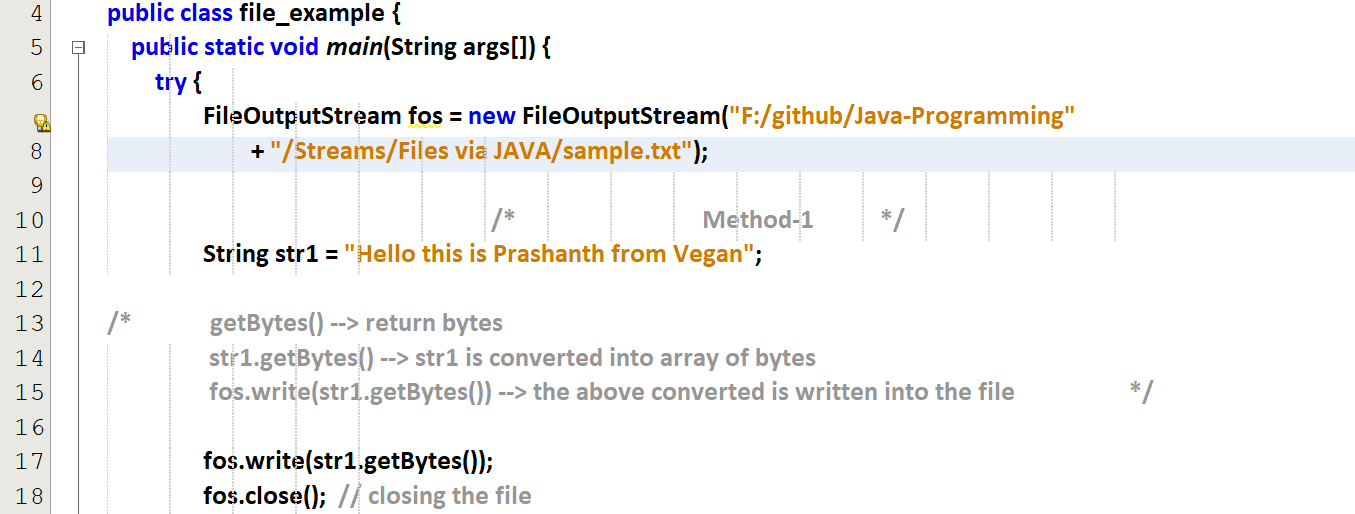
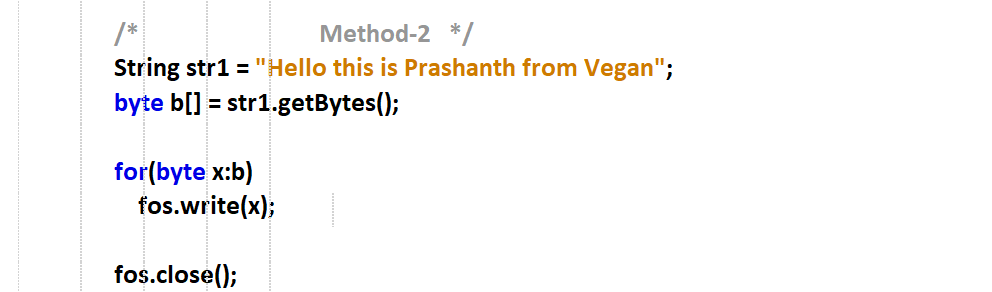
# **File Output Streams**

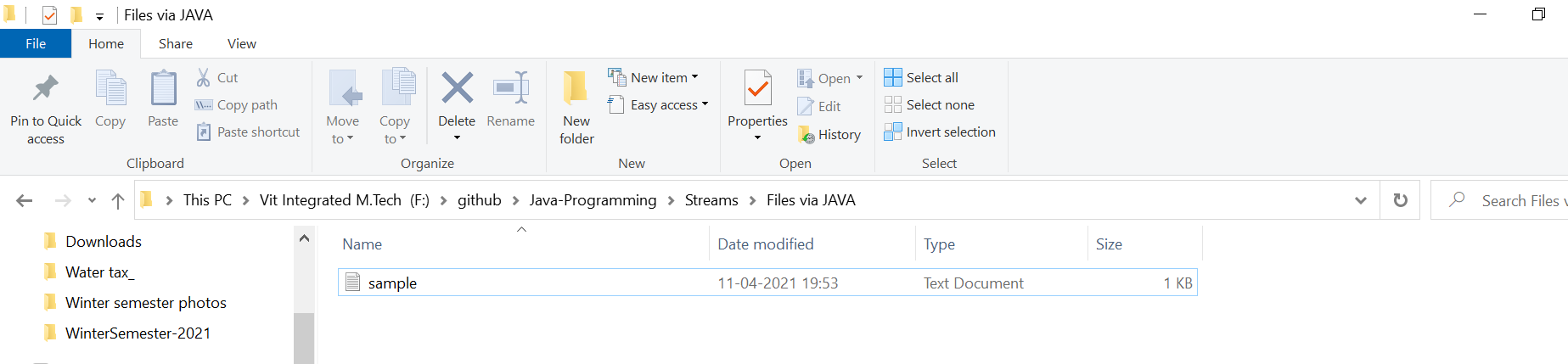
* Create a Test.txt file.
* Using fileOutputStream/FileReader write the contents into the Test.txt
* Using fileInputStream/FileWriter read the contents from Test.txt

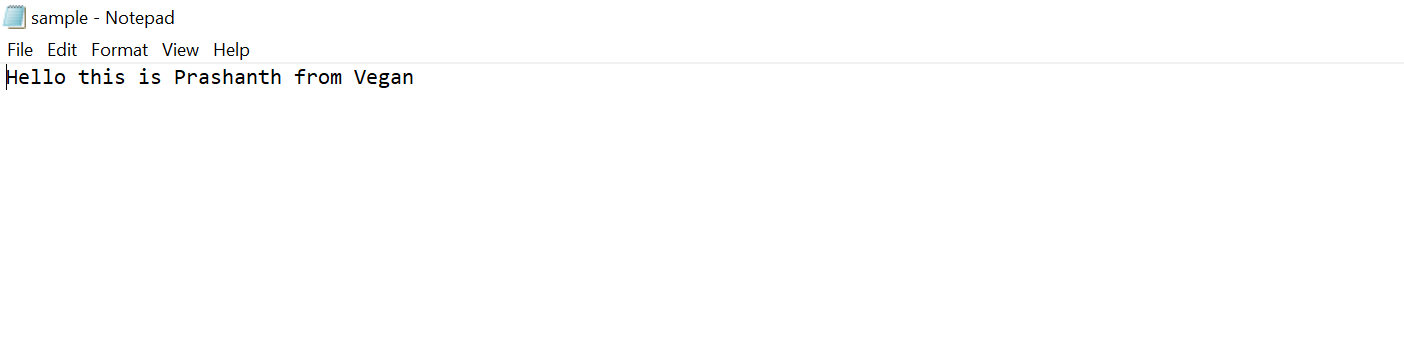
## **Method-1**



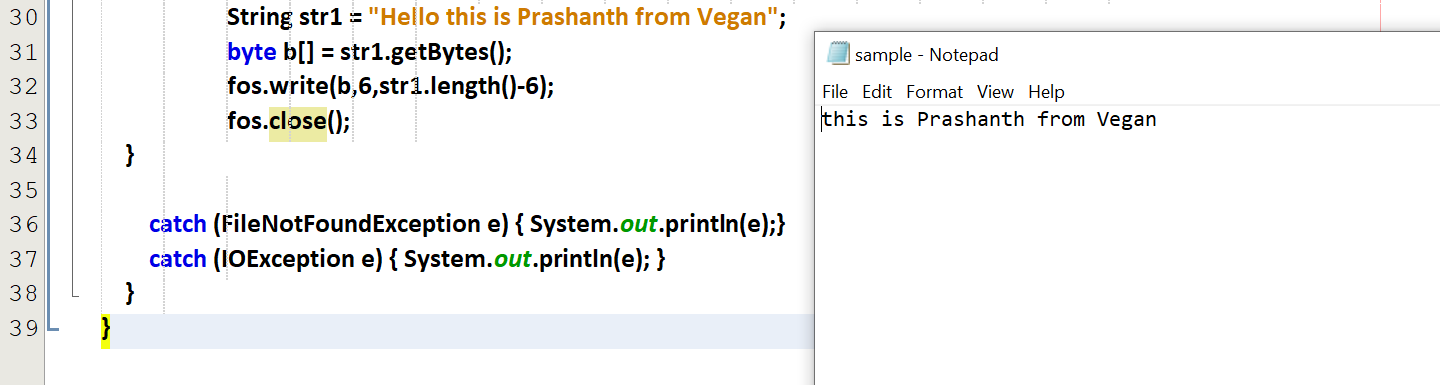
## **Method-2**



Output 

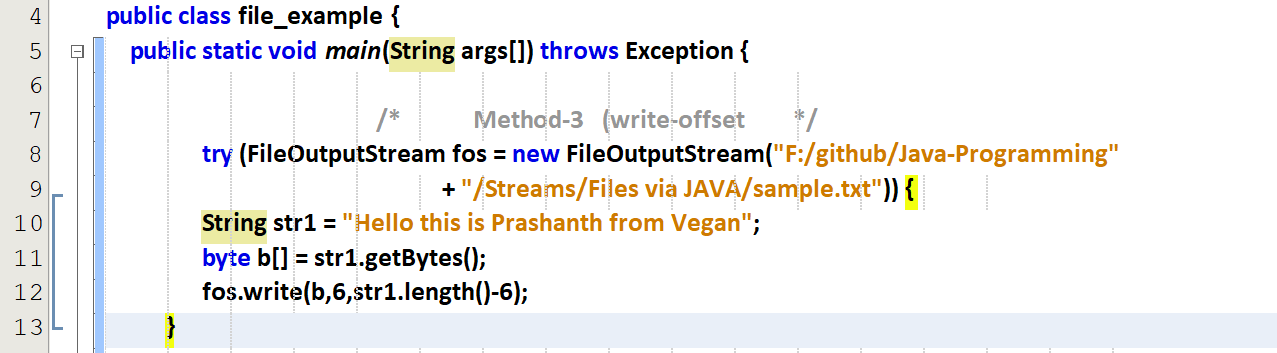


## **Method-3 (write offset)**



Press alt+enter on fos

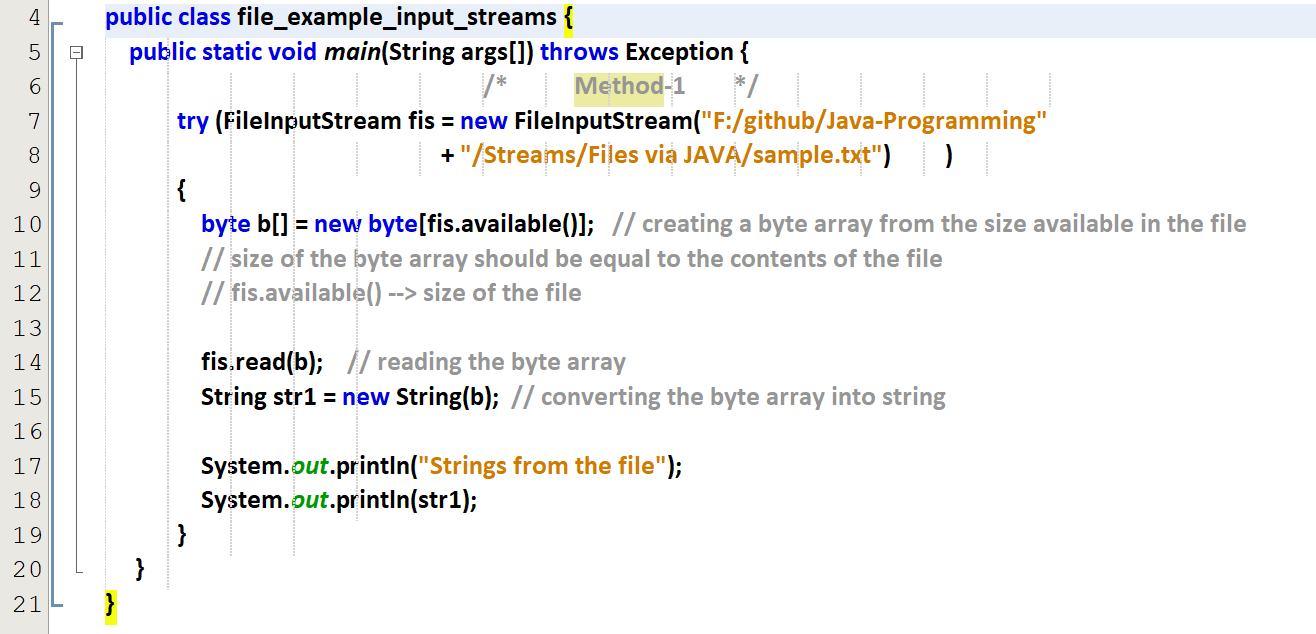
## **Method-4 (with throws Exception)**



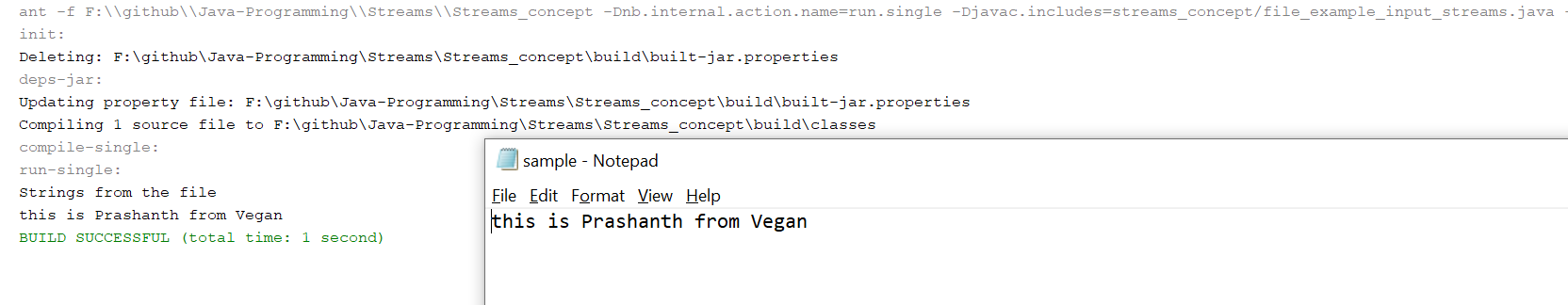
Who will handle this exception 🡪 JVM  
throws in Main will be handled by main()

# **File Input Streams**

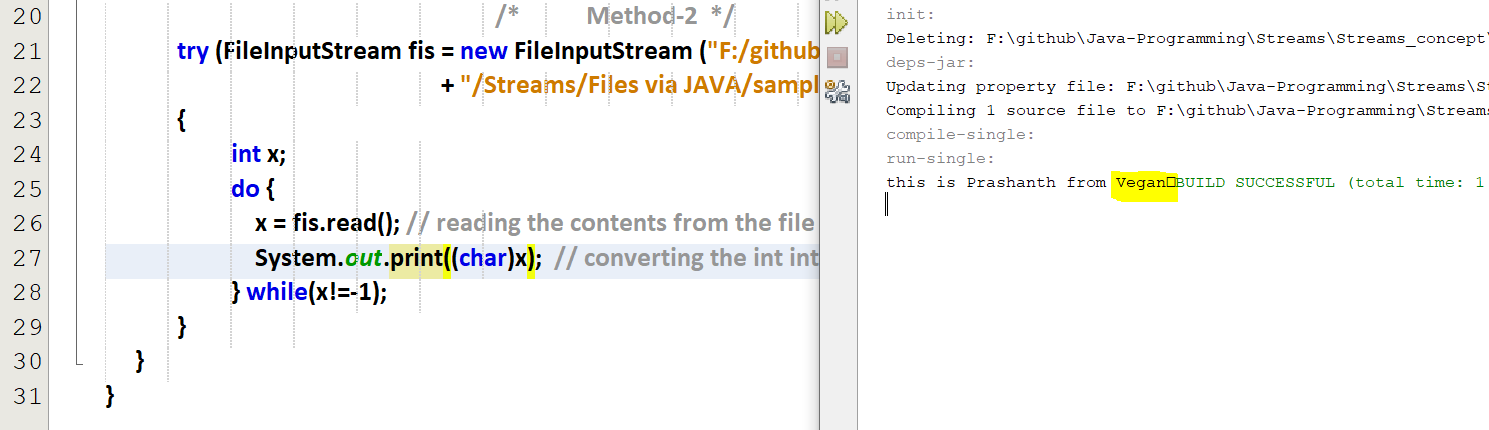
## **Method-1**



Output



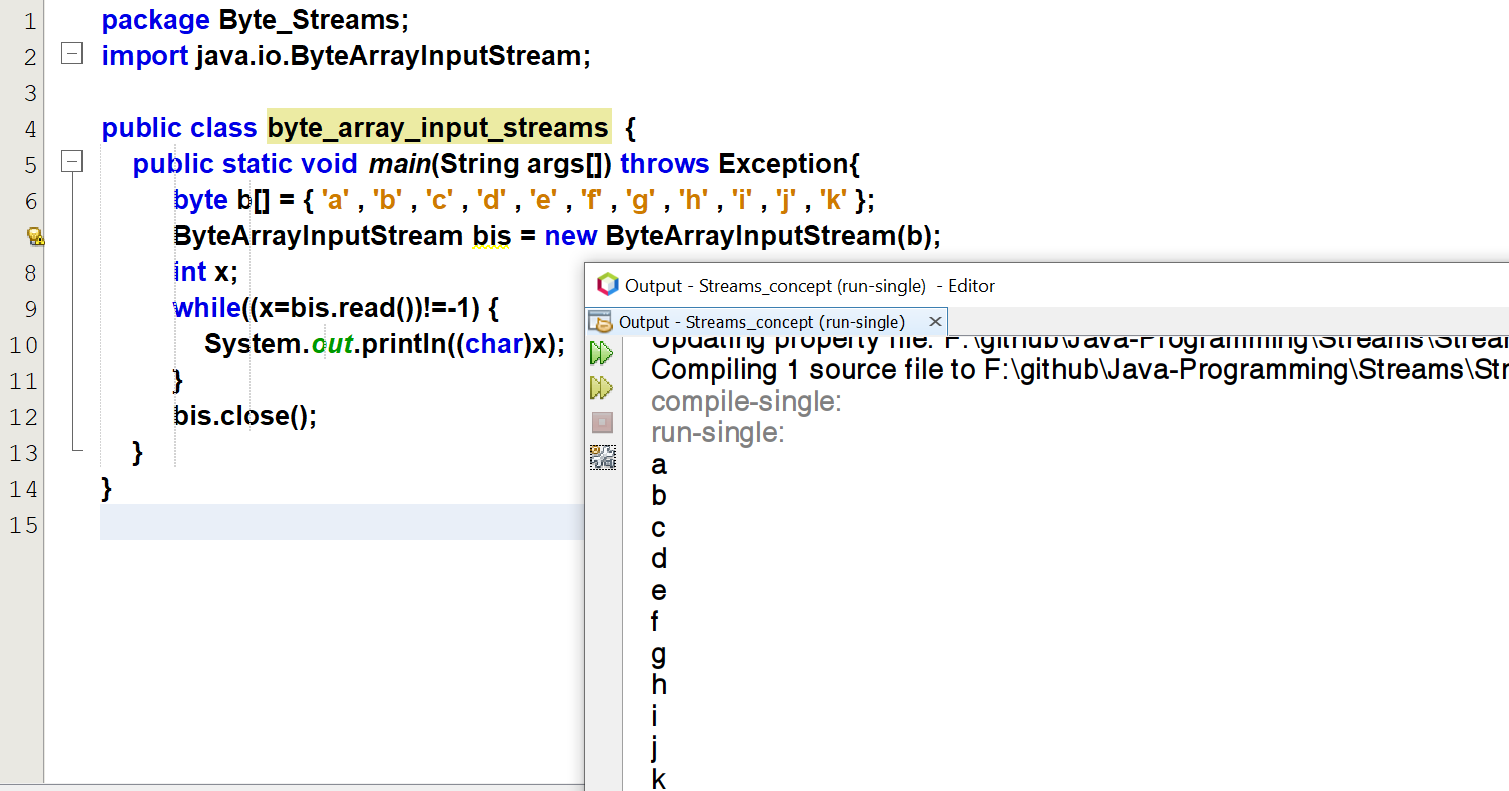
## **Method-2 (reading the last character also)**



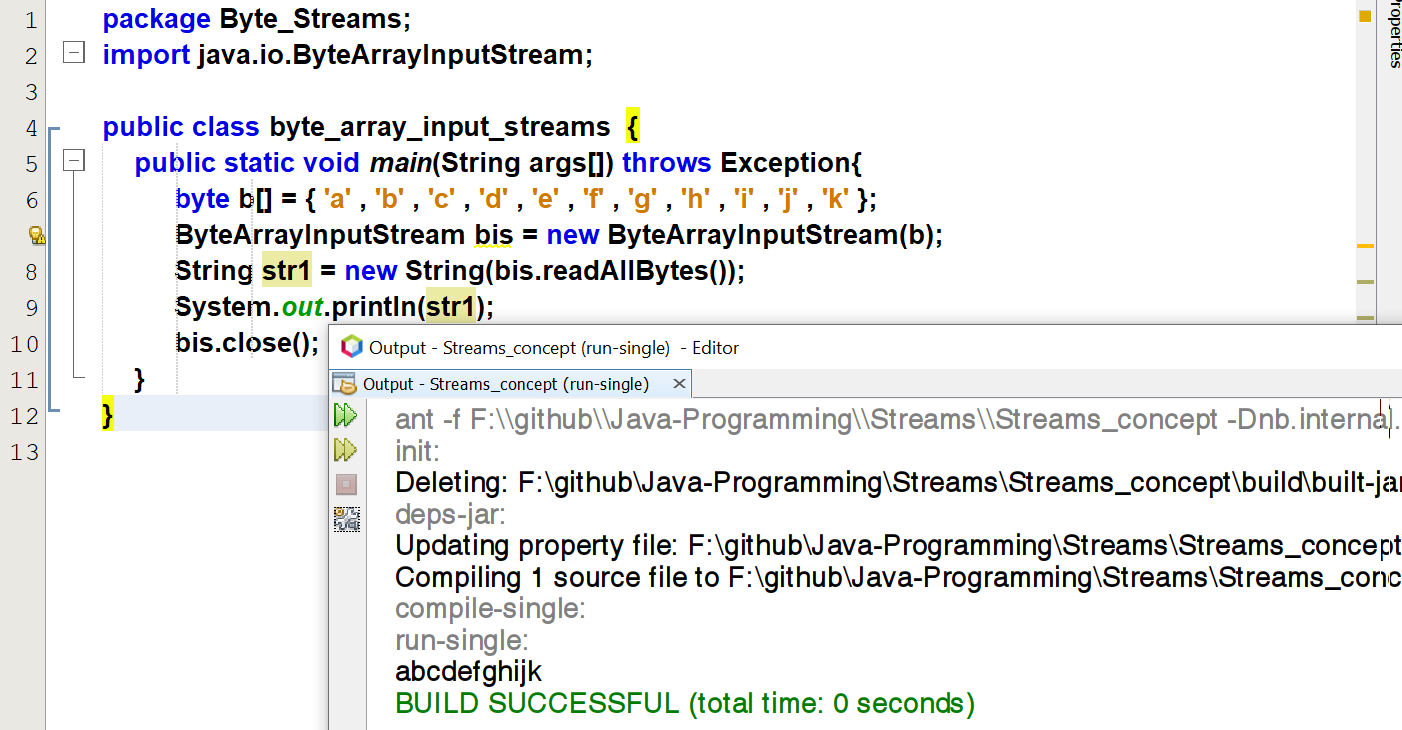
## **Method-3**

# **Byte Array Output Stream**

## **Method-1**

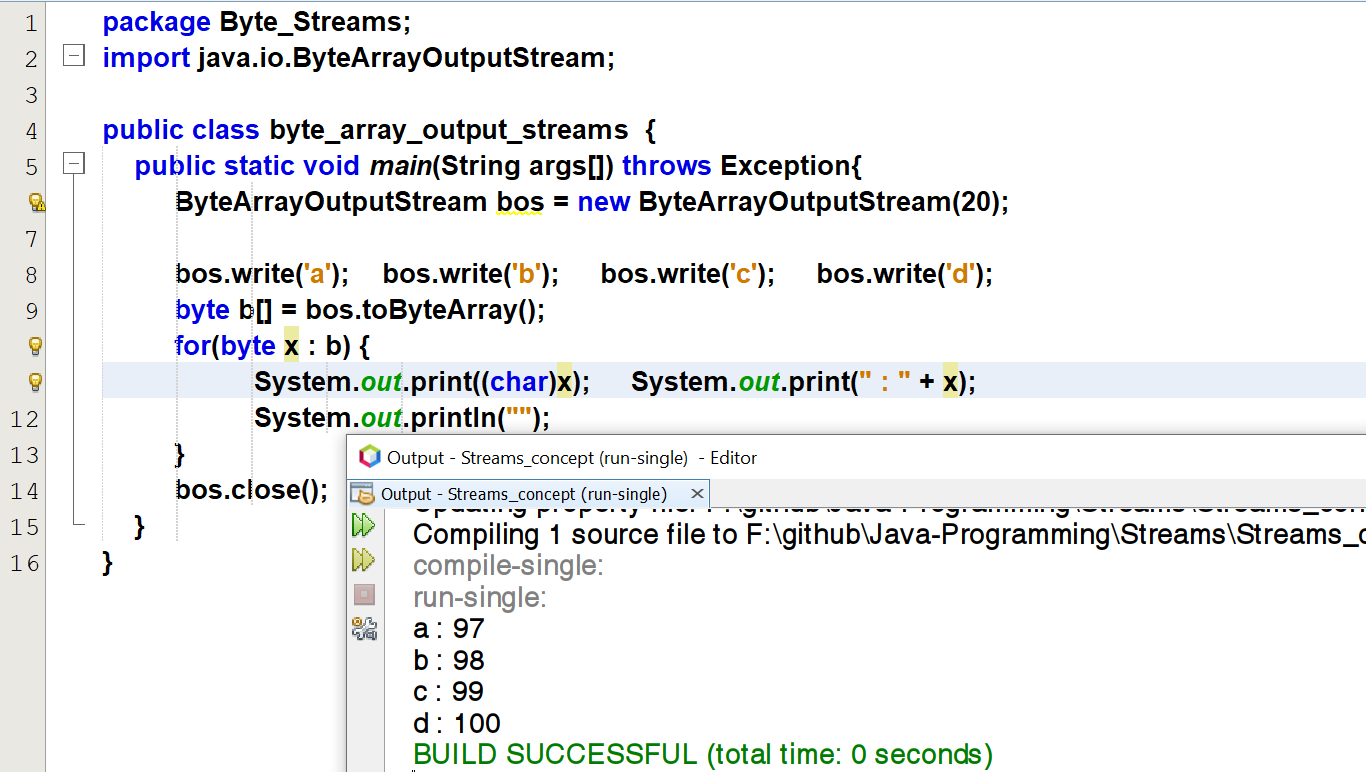


## **Method-2**



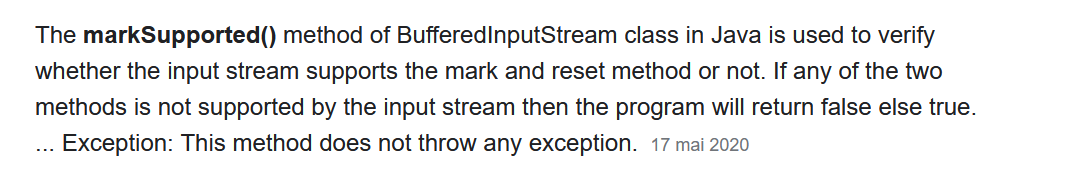
# **Byte Array Input Stream**

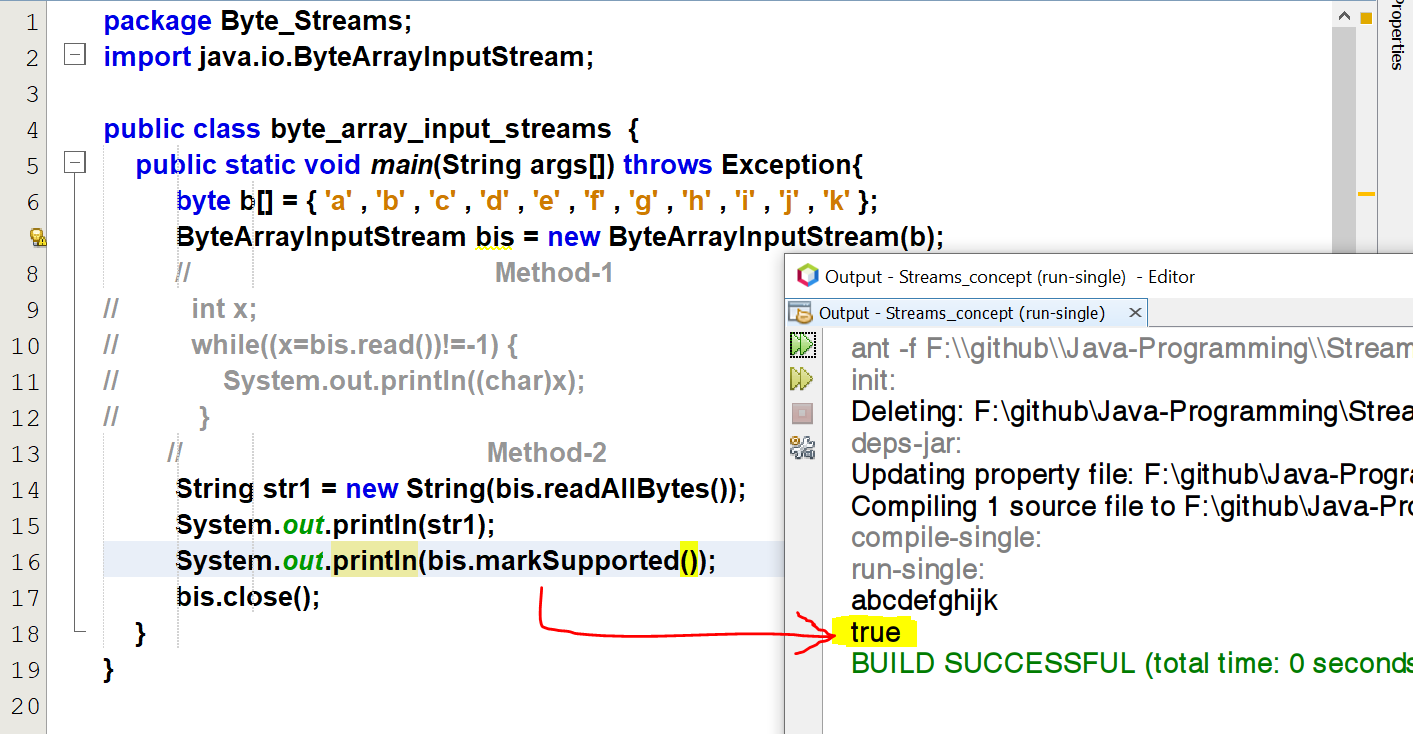
## **Method-1**



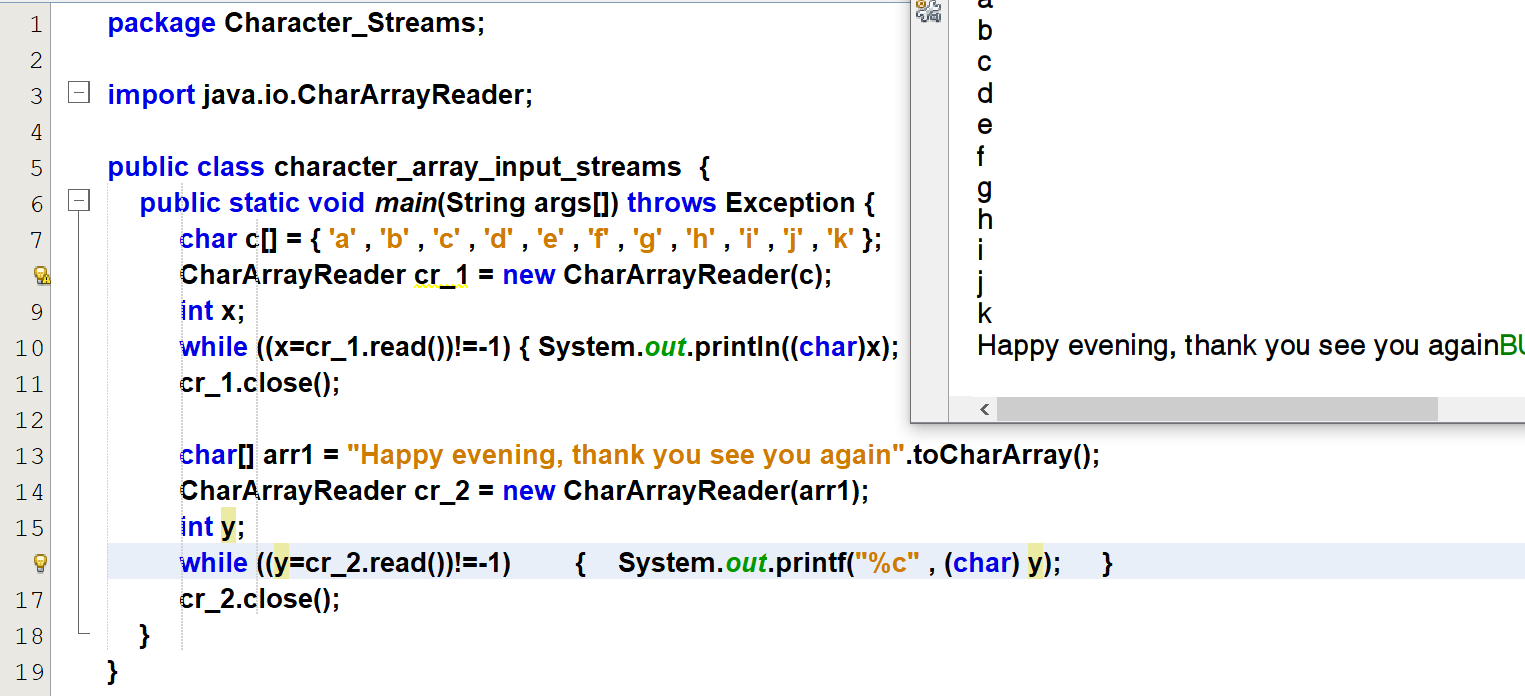
## **Method-2**

## **Also supports markSupported()**

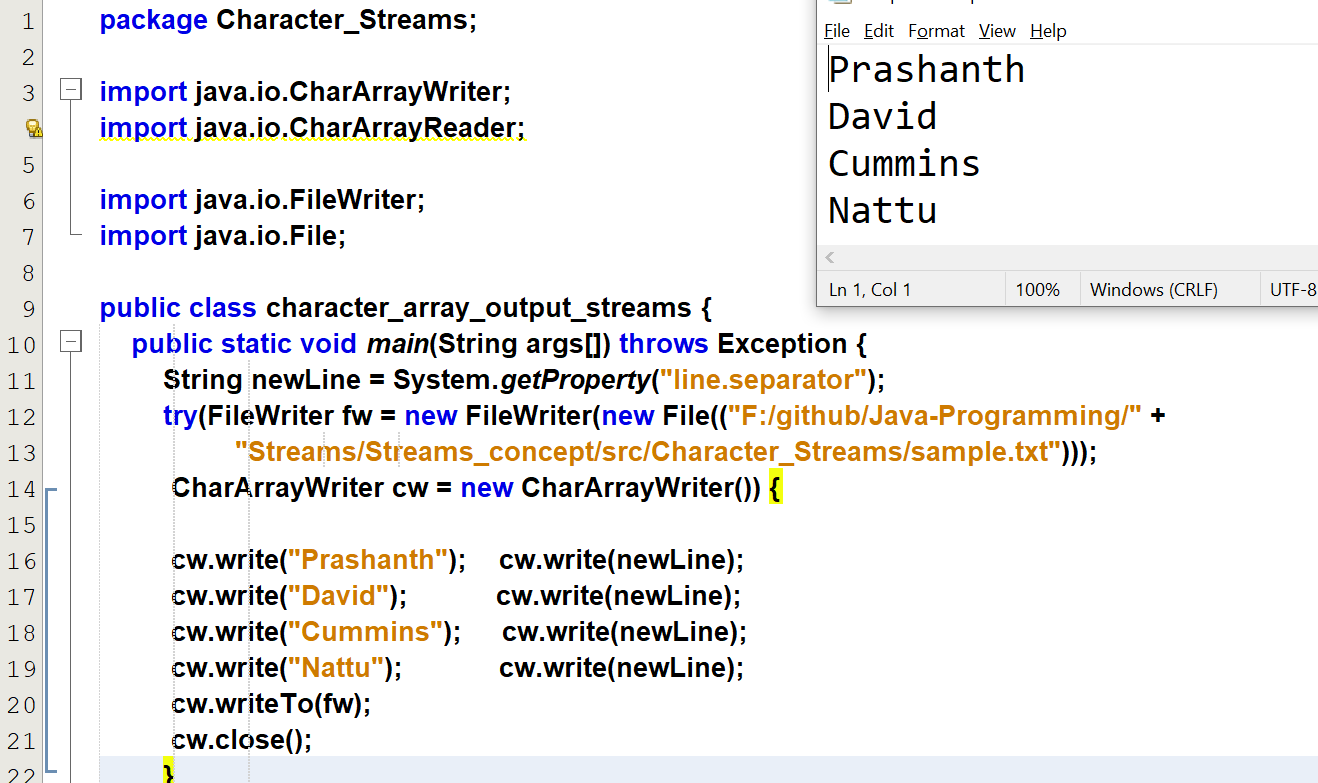




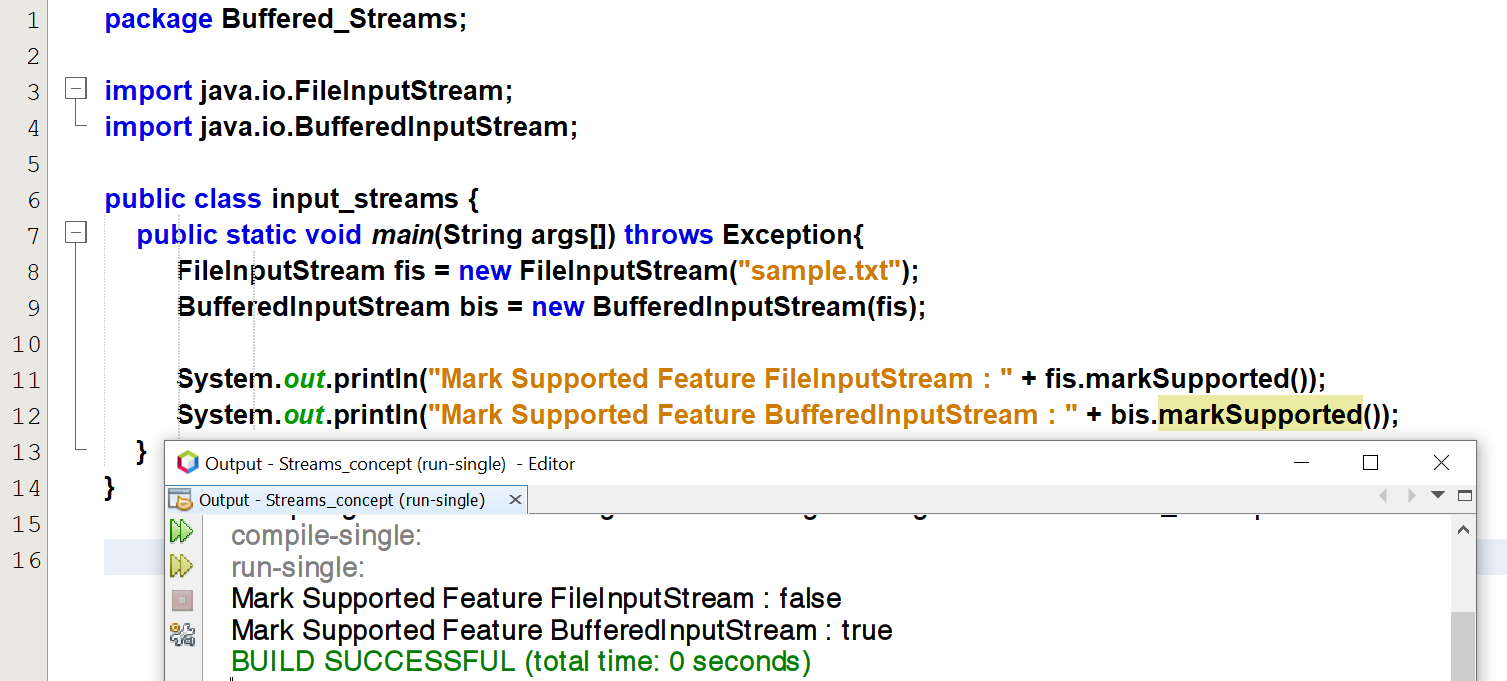
# **Character Array input Streams**

import java.io.CharArrayReader;

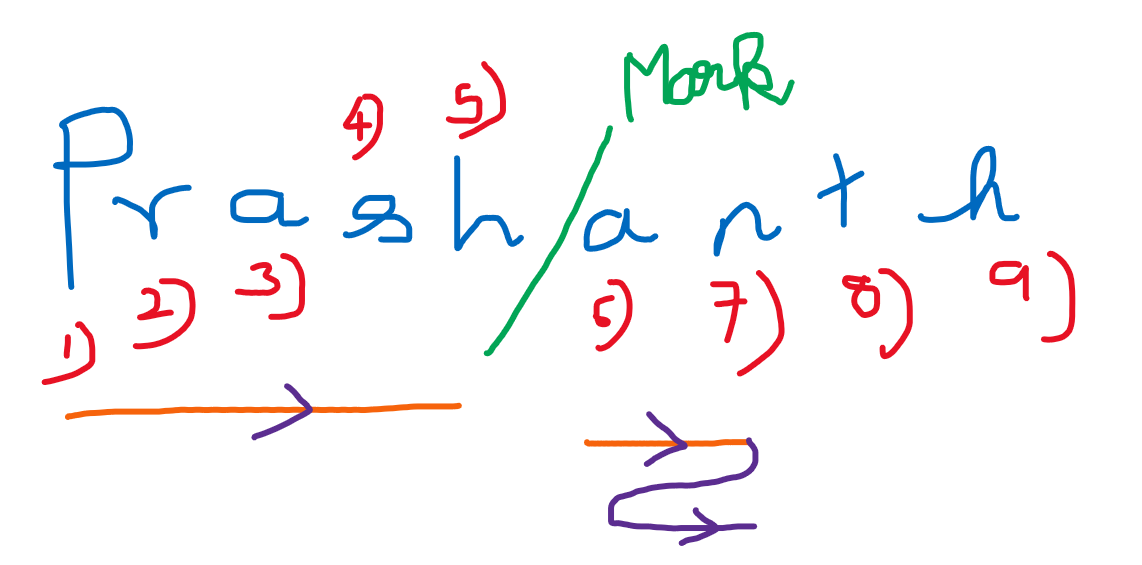
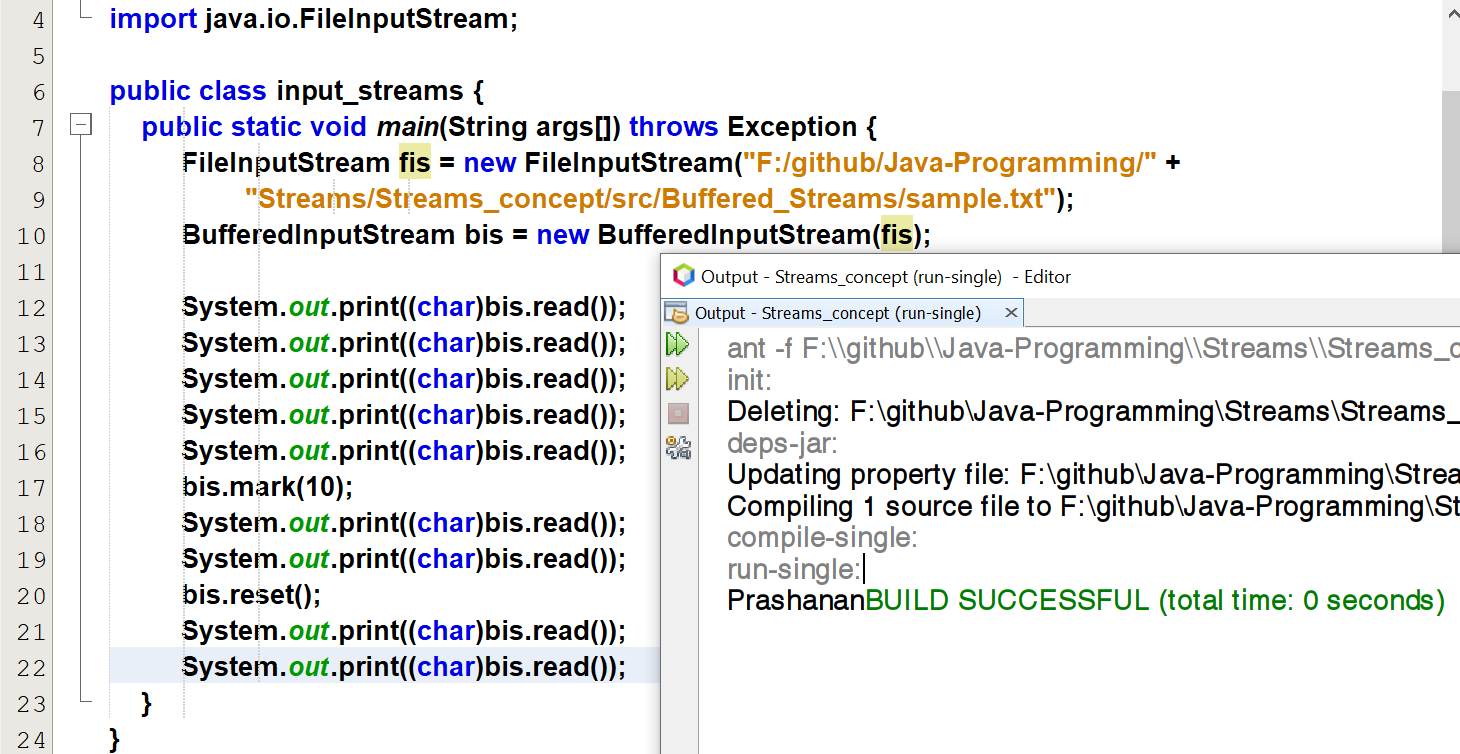
# **Character Array output Streams**

import java.io.CharArrayWriter;

# **Buffered Streams**

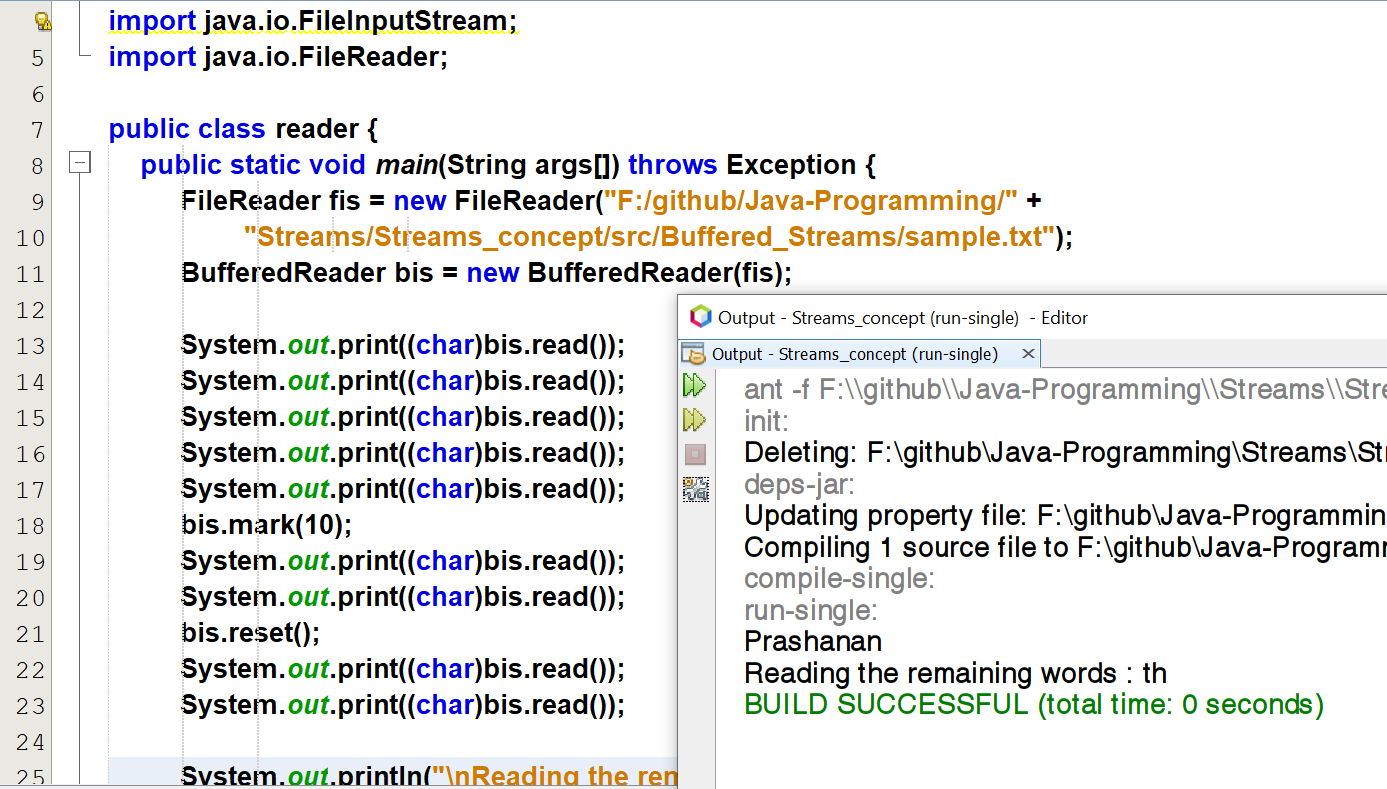


## **Buffered input stream**



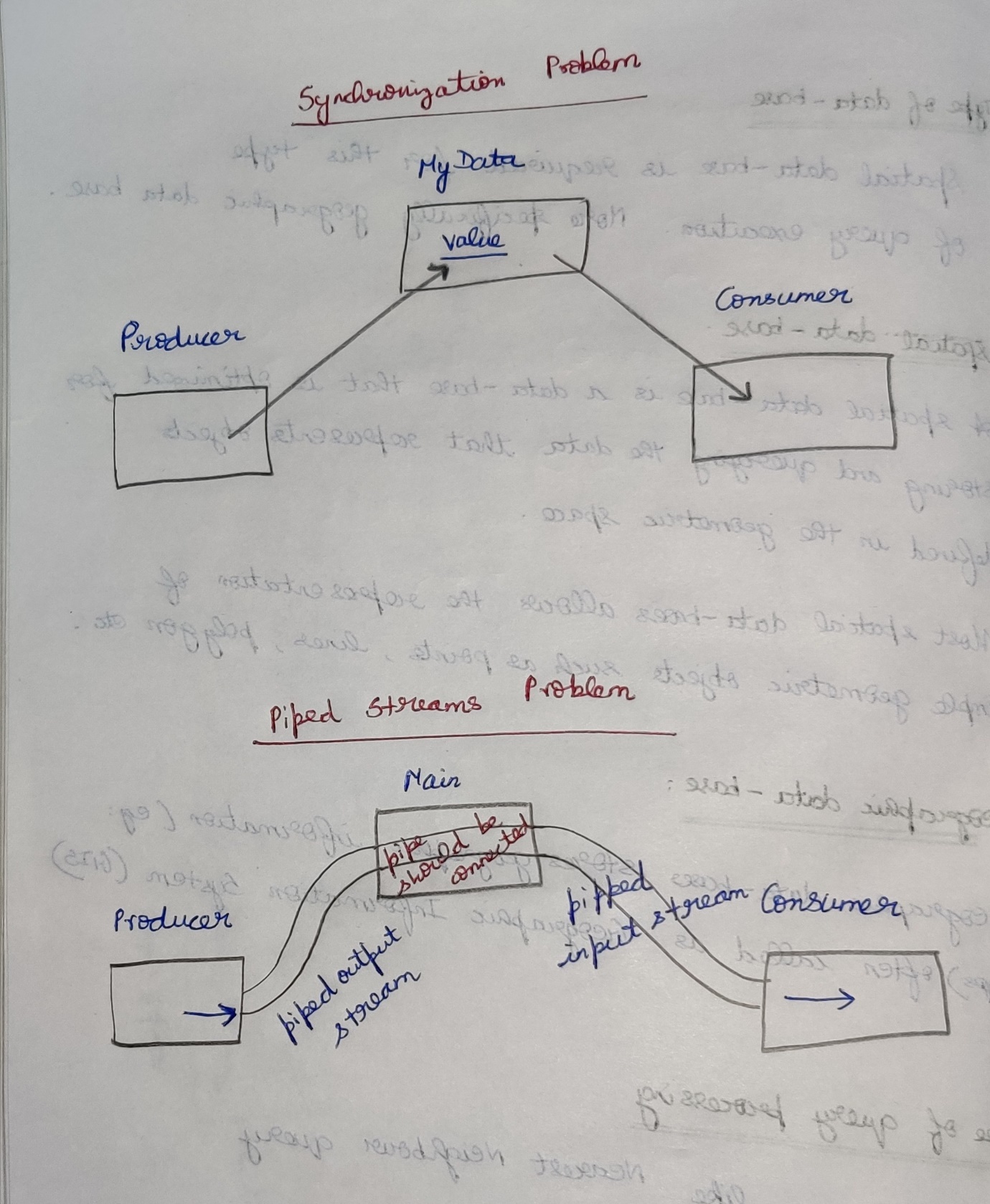
## **Buffered output stream**

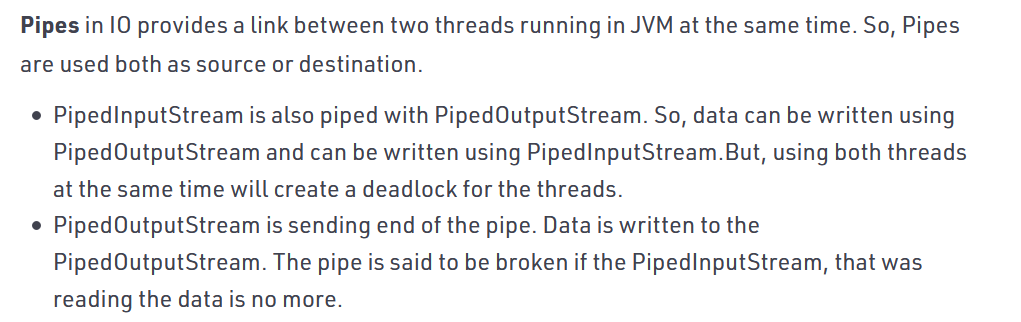
## **Buffered reader**



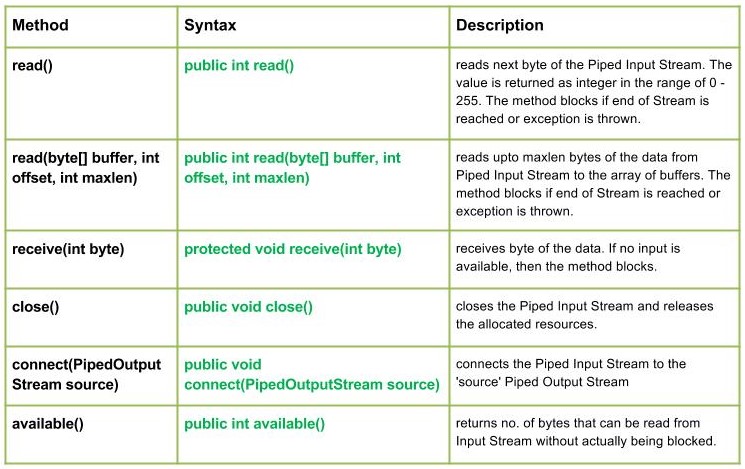
## **Buffered writer**

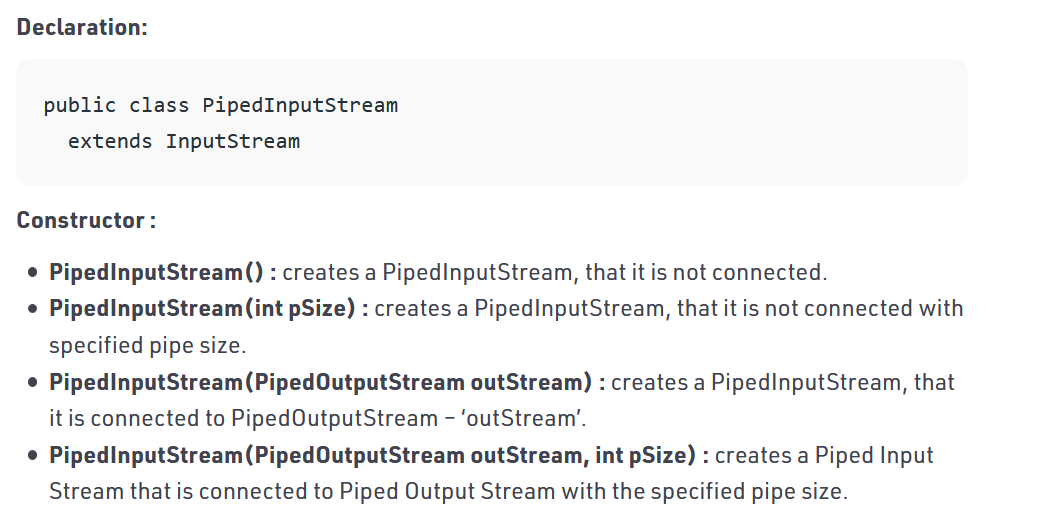
# **Piped Streams**

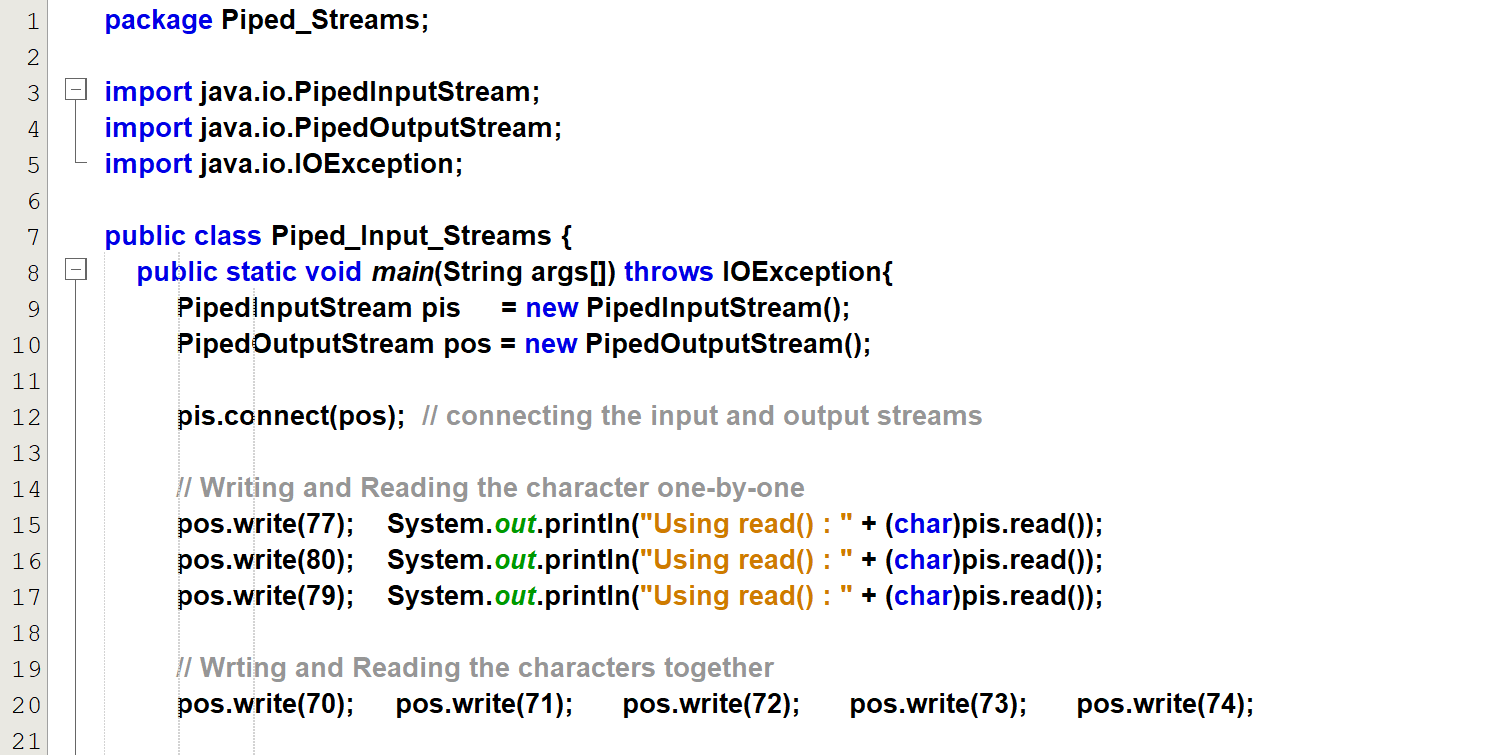
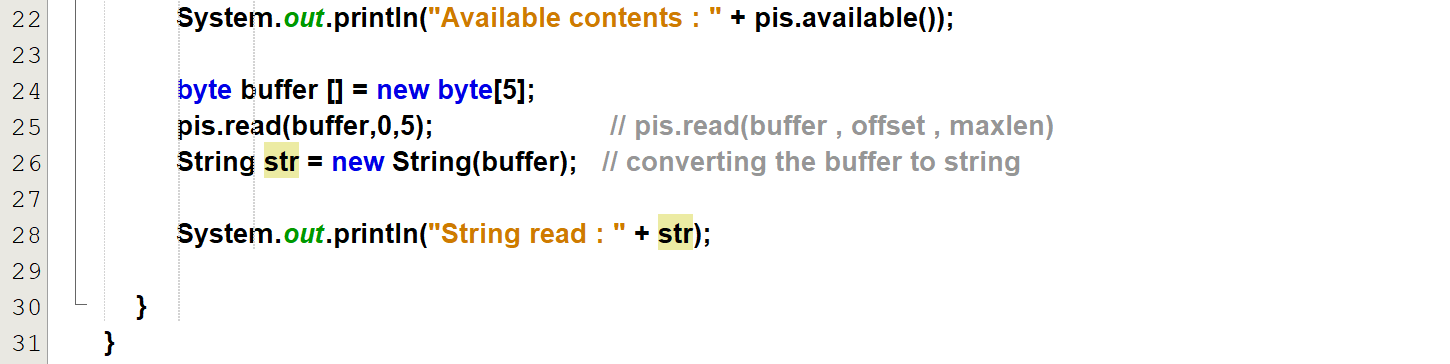
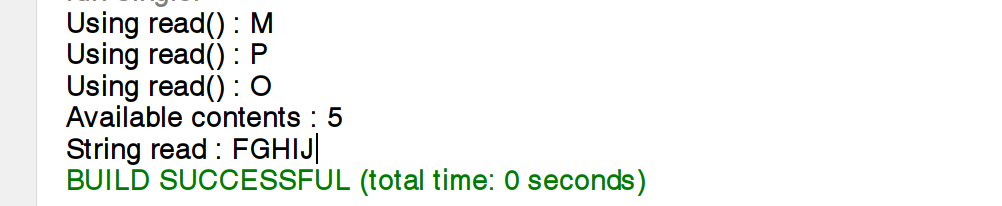




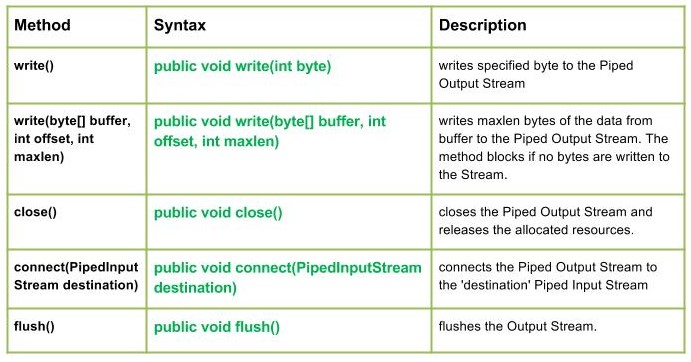
## **PipedInputStreams**



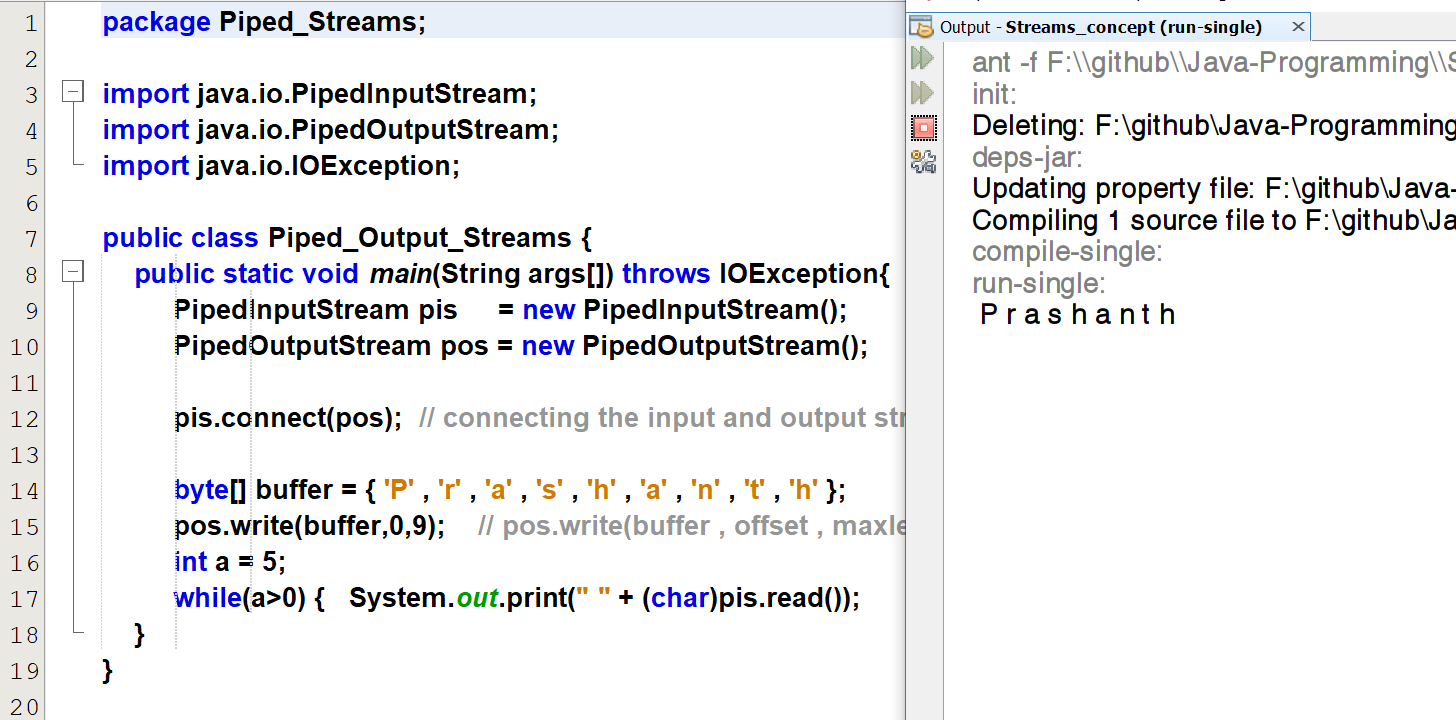


Refer Piped\_input\_stream.java  
  


## **PipedOutputStreams**



Refer Piped\_output\_stream.java



## **Producer Consumer problem**

Refer Producer\_Consumer.java