**Day.12**

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| Java input and output, Streams, byte streams and character streams, InputStream, OutputStream, Reader, Writer |
| File, FileInputStream, BufferedInputStream, DataInputStream, FileOutputStream, BufferedOutputStream, DataOutputStream |
| FileReader, BufferedReader, FileWriter, BufferedWriter |
| InputStreamReader, OutputStreamWriter |
| Serialization |
| Introduction to XML |
| XML DOM, Parsing XML |
| Annotation, Built-in and Custom |

**Q1**) Write a program that creates a new file called BatchMates.txt and store it in a directory named Batch. Also list the files or subdirectories present in the drive/directory where the directory Batch exists, stating if it is a file or directory.

Q2) Write java code that reads and replaces \n by new line character and write it to the file. Note that since the data in the file is very large , reading string data at one stroke may lead to overflow problems.

**Hint** : you may need to read and unread characters

**Q3**) Write a program using byte stream that copies the content of one file into another file.

**Q4**) Create a file called product list. Prompt the user to enter the name, price and manufacturing date. Save formatted data in the product list file so that name of the product should not exceed 10 characters, price is a double saved with precision as 2 chars after decimal such as 100.00 and date in format 05/29/06.

**Q5**) Create an object called student whose attributes are s\_id, s\_name and s\_marks. Write a program to Serialize and deserialize the student object except for the s\_marks attribute.

Q6) Write a program to read a csv file (comma separated file) from the system, the csv file can have details of employees like emp code, department, salary etc and every record is separated by a newline character. Use Java scanner class to read this file and print each employee details in a row.

Q7) Write a java program to find number of characters, number of words and number of lines in a text file.

Q8) Given an XML file(<https://www.w3schools.com/xml/simple.xml>), read the data and put into a .txt file without XML tags. Use XML parser to parse XML file.

Q9) Take the .properties (having name and value pairs) and write a program to convert it to an XML file.