Programming Fundamentals II Sec. 600

Assignment #6

Due date: 7/25/22 at 11:59 pm

1. (40 points) Briefly define (one to two sentences) each of the following five terms.

1. Binary file

*Store data as a direct sequence of bits, more efficient for processing. Ex Java class files*

1. FileInputStream

*This class provides the methods, read(), read(byte[] b), int offset, int length), close(), and skip(). Throws FileNotFoundException if file does not exist*

1. FileOutputStream

*This class provides methods, write(), write(byte[] b), int offset, int length), close(), and flush(). Creates file if it does not already exist*

1. DataInputStream

*Reads bytes from file and converts to appropriate type of data*

1. DataOutputStream

*Converts data to bytes and writes to file*

2. (30 points) Briefly explain the benefits of using binary files to handle Java class files.

*Using binary is more efficient and quicker for a computer to read and execute because encoding and decoding is not needed. Since binary files are independent of encoding shceme it is more portable and can be used on multiple computers and run in different software like windows or Mac iOS.*

3. (30 points) Briefly explain how the BufferedInputStream and BufferedOutputStream classes can speed up I/O processing.

*The BufferedInputStream pulls data from a buffer which allows for less disk reads and allows program to execute code more quickly. OutputStream data is first written to buffer and when the buffer is full then moved to the file on disk. It also speeds up the processing time.*