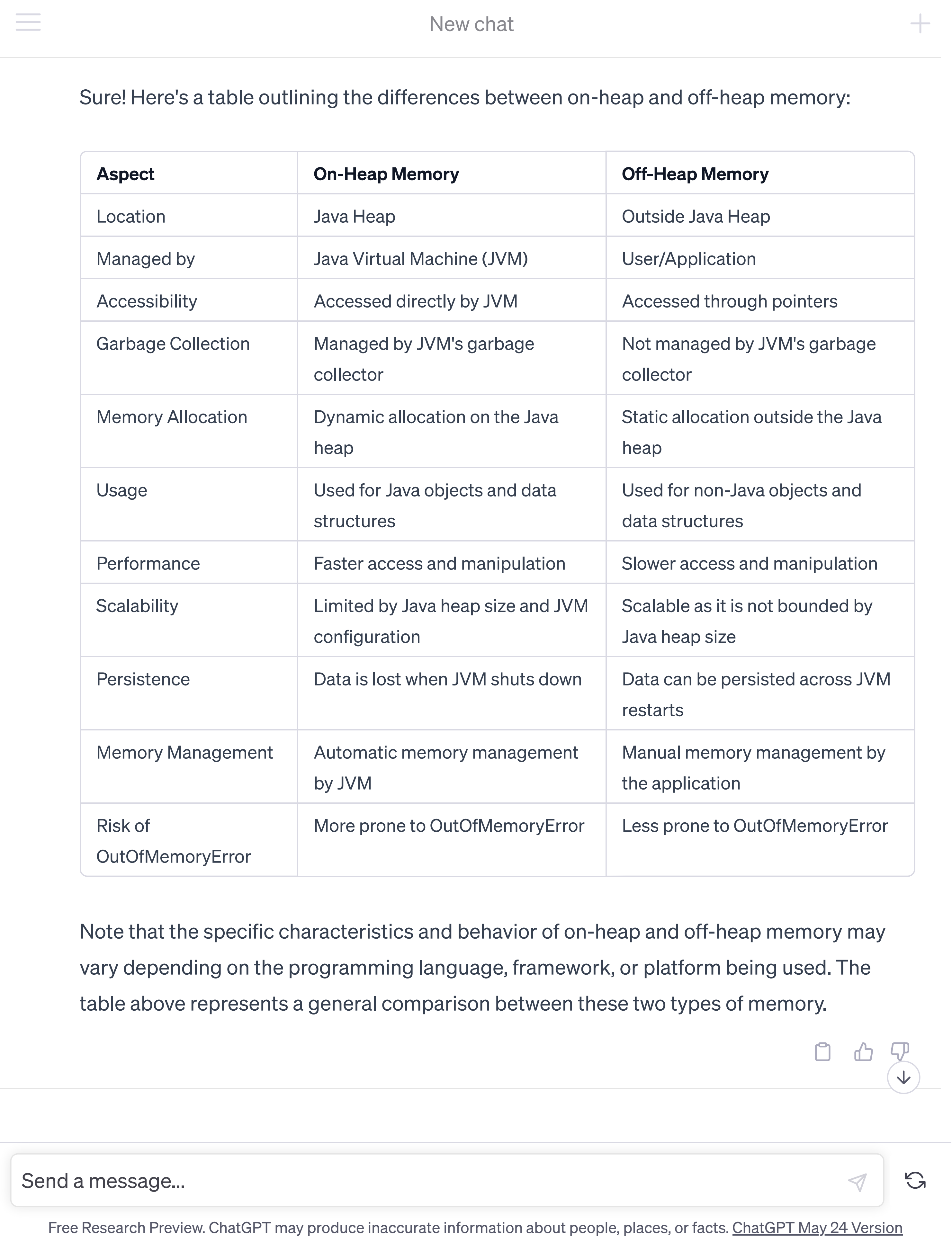

Sure! Here's a table outlining the differences between on-heap and off-heap memory:

Aspect	**On-Heap Memory**	**Off-Heap Memory**
Location	Java Heap	Outside Java Heap
Managed by	Java Virtual Machine (JVM)	User/Application
Accessibility	Accessed directly by JVM	Accessed through pointers
Garbage Collection	Managed by JVM's garbage collector	Not managed by JVM's garbage collector
Memory Allocation	Dynamic allocation on the Java heap	Static allocation outside the Java heap
Usage	Used for Java objects and data structures	Used for non-Java objects and data structures
Performance	Faster access and manipulation	Slower access and manipulation
Scalability	Limited by Java heap size and JVM configuration	Scalable as it is not bounded by Java heap size
Persistence	Data is lost when JVM shuts down	Data can be persisted across JVM restarts
Memory Management	Automatic memory management by JVM	Manual memory management by the application
Risk of OutOfMemoryError	More prone to OutOfMemoryError	Less prone to OutOfMemoryError

Note that the specific characteristics and behavior of on-heap and off-heap memory may vary depending on the programming language, framework, or platform being used. The table above represents a general comparison between these two types of memory.

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