## git\_comments:

- 1. All ValueVector types have been handled.

\*

- 3. false, and bit was previously set
- 4. \* \* Allocate a new memory space for this vector. Must be called prior to using the ValueVector. \* \* @param valueCount \* The number of values which can be contained within this vector.
- 5. \* \* Get the element at the specified position. \* \* @param index position of the value \* @return value of the element, if not null \* @throws NullValueException if the value is null
- 6. \* \* Returns the maximum number of values contained within this vector. \* @return Vector size
- 7. \* \* For testing only -- randomize the buffer contents
- 8. \* \* Get the Java Object representation of the element at the specified position \* \* @param index Index of the value to get
- 9. \* \* Repeated\${minor.class} implements a vector with multple values per row (e.g. JSON array or \* repeated protobuf field). The implementation uses two additional value vectors; one to convert \* the index offset to the underlying element offset, and another to store the number of values \* in the vector. \* NB: this class is automatically generated from ValueVectorTypes.tdd using FreeMarker.
- 10. number of repeated elements in each record offsets to start of each record
- 11. \* \* Get the size requirement (in bytes) for the given number of values. Takes derived \* type specs into account.
- 12. logger.debug("BIT GET: index: {}, byte: {}, mask: {}, masked byte: {}", index, data.getByte((int)Math.floor(index/8)), (int)Math.pow(2, (index % 8)), data.getByte((int)Math.floor(index/8)) & (int)Math.pow(2, (index % 8)));
- 13. \* \* Add an element to the given record index. This is similar to the set() method in other \* value vectors, except that it permits setting multiple values for a single record. \* \* @param index record of the element to add \* @param value value to add to the given row
- 14. \* \* Get the elements at the given index.
- 15. \*

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- 16. \* \* Set the element at the given index to the given value. Note that widths smaller than \* 32 bits are handled by the ByteBuf interface. \* \* @param index position of the bit to set \* @param value value to set
- 17. \* \* Get information about how this field is materialized. \* @return
- 18. \* \* Release the underlying ByteBuf and reset the ValueVector
- 19. \* \* Get the size requirement (in bytes) for the given number of values.
- 20. \* \* \${minor.class} implements a vector of variable width values. Elements in the vector \* are accessed by position from the logical start of the vector. A fixed width lengthVector \* is used to convert an element's position to it's offset from the start of the (0-based) \* ByteBuf. Size is inferred by adjacent elements. \* The width of each element is \${type.width} byte(s) \* The equivilent Java primitive is

- '\${minor.javaType!type.javaType}' \* \* NB: this class is automatically generated from ValueVectorTypes.tdd using FreeMarker.
- 21. \* \* Set the bit at the given index to the specified value. \* \* @param index position of the bit to set \* @param value value to set (either 1 or 0)
- 22. set the end offset of the buffer
- 23. \* \* Get a value for the given record. Each element in the repeated field is accessed by \* the positionIndex param. \* \* @param index record containing the repeated field \* @param positionIndex position within the repeated field \* @return element at the given position in the given record
- 24. \* \* Release supporting resources.
- 25. \* \* Get the size requirement (in bytes) for the given number of values. Only accurate \* for fixed width value vectors.
- 26. \* \* Get the byte holding the desired bit, then mask all other bits. Iff the result is 0, the \* bit was not set. \* @param index position of the bit in the vector \* @return 1 if set, otherwise 0
- 27. \* \* Get the explicitly specified size of the allocated buffer, if available. Otherwise \* calculate the size based on width and record count.
- 28. \* \* Allocate a new memory space for this vector. Must be called prior to using the ValueVector. \* \* @param valueCount The number of values which may be contained by this vector.
- 29. \*\* Return the underlying buffers associated with this vector. Note that this doesn't impact the \* reference counts for this buffer so it only should be used for in-context access. Also note \* that this buffer changes regularly thus external classes shouldn't hold a reference to \* it (unless they change it). \* \* @return The underlying ByteBuf.
- 30. \* \* Allocate a new memory space for this vector. Must be called prior to using the ValueVector. \* \* @param valueCount The number of values which can be contained within this vector.
- 31. \*\* Mutable\${minor.class} implements a mutable vector of fixed width values. Elements in the \* vector are accessed by position from the logical start of the vector. Values should be pushed \* onto the vector sequentially, but may be randomly accessed. \* The width of each element is \${type.width} byte(s) \* The equivilent Java primitive is '\${minor.javaType!type.javaType}' \* \* NB: this class is automatically generated from ValueVectorTypes.tdd using FreeMarker.
- 32. \*\* Allocate a new memory space for this vector. Must be called prior to using the ValueVector. \*\*

  @param totalBytes Optional desired size of the underlying buffer. Specifying 0 will \* estimate the size based on valueCount. \*@param sourceBuffer Optional ByteBuf to use for storage (null will allocate automatically). \*@param valueCount Number of values in the vector.
- 33. \* \* ValueVectorTypes defines a set of template-generated classes which implement type-specific \* value vectors. The template approach was chosen due to the lack of multiple inheritence. It \* is also important that all related logic be as efficient as possible.
- 34. \* \* Set the variable length element at the specified index to the supplied byte array. \* \* @param index position of the bit to set \* @param bytes array of bytes to write
- 35. \* \* Get the number of records allocated for this value vector. \* @return number of allocated records
- 36. \*\* Nullable\${minor.class} implements a vector of values which could be null. Elements in the vector \* are first checked against a fixed length vector of boolean values. Then the element is retrieved \* from the base class (if not null). \*\* NB: this class is automatically generated from ValueVectorTypes.tdd using FreeMarker.
- 37. \* \* Allocate a new memory space for this vector. Must be called prior to using the ValueVector. \* \* @param valueCount \* The number of elements which can be contained within this vector.
- 38. \* \* ValueVector.Base implements common logic for all immutable value vectors.
- 39. \* \* Get the metadata for this field. \* @return
- 40. \*\* MutableBit implements a vector of bit-width values. Elements in the vector are accessed \* by position from the logical start of the vector. Values should be pushed onto the vector \* sequentially, but may be randomly accessed. \* \* NB: this class is automatically generated from ValueVectorTypes.tdd using FreeMarker.
- 41. true
- 42. \*\* Bit implements a vector of bit-width values. Elements in the vector are accessed \* by position from the logical start of the vector. \* The width of each element is 1 bit. \* The equivilent Java primitive is an int containing the value '0' or '1'. \* \* NB: this class is automatically generated from ValueVectorTypes.tdd using FreeMarker.
- 43. \* \* Define the number of records that are in this value vector. \* @param recordCount Number of records active in this vector.
- 44. \* \* Mutable\${minor.class} implements a vector of variable width values. Elements in the vector \* are accessed by position from the logical start of the vector. A fixed width lengthVector \* is used to convert

an element's position to it's offset from the start of the (0-based) \* ByteBuf. Size is inferred by adjacent elements. \* The width of each element is \${type.width} byte(s) \* The equivilent Java primitive is '\${minor.javaType!type.javaType}' \* \* NB: this class is automatically generated from ValueVectorTypes.tdd using FreeMarker.

- 45. \* \* \${minor.class} implements a vector of fixed width values. Elements in the vector are accessed \* by position, starting from the logical start of the vector. Values should be pushed onto the \* vector sequentially, but may be randomly accessed. \* The width of each element is \${type.width} byte(s) \* The equivilent Java primitive is '\${minor.javaType!type.javaType}' \* \* NB: this class is automatically generated from ValueVectorTypes.tdd using FreeMarker.
- 46. Build an optional float field definition
- 47. Create and set 3 sample strings
- 48. Put and set a few values
- 49. Build a required boolean field definition
- 50. test setting the same value twice
- 51. Ensure unallocated space returns 0
- 52. Build a required uint field definition
- 53. Build an optional varchar field definition
- 54. Check the sample strings
- 55. test toggling the values
- 56. Build an optional uint field definition
- 57. Ensure null values throw
- 58. Create a new value vector for 1024 integers
- 59. Ensure null value throws
- 60. public static WritableBatch get(ValueVector.Base[] vectors){
- 61. TODO: ensure the foreman handles the exception

## git\_commits:

githinh issues

1. summary: Create new generated value vectors utilizing fmpp. Includes: message: Create new generated value vectors utilizing fmpp. Includes: - First pass; integrate build system and some cursory implementations - starting to split common logic into base class - implement most of varlen value vector functionality, minor cleanup of tdd tags - added nullable derived class - Merge changes from JA, minor format cleanup. - minor fix and cleanup - added bit vector, removed widthInBits which also allowed removal of FixedBase ctor - apply TC's fix for resetAllocation() - added repeated value vectors - Hooked up templated ValueVectors to codebase. Removed old ValueVector classes. Cleanup. - fix repeated get() and add() - added some value vector tests. fixed bugs in VV and some call sites. generated TypeHelper from FMPP template. removed unused VV methods - made base immutable, some debugging - split mutable/immutable basic VV types. minor refactoring - fix several allocation bugs - fix various bugs, only JSONRecordReader test is failing - fix nullable bit value vector - make bit vectors use ints to represent the bit value - remove superfluous logging - fix value vector getters and setter - comments and cleanup - temp disable repeated map JSONReader test - formatting - whitespace cleanups

grenab_issues.
github_issues_comments:
github_pulls:
github_pulls_comments:
github_pulls_reviews:
jira_issues:
jira issues comments: