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| **Day-6 morning assignment**  **By**  **Bhanu Rama Krishna Prakash Jakkamsetti**  **31/1/2022** |

1.Research and find how the values of Array List are stored in the memory.

* The elements of an ArrayList are stored in a chunk of contiguous memory. When that memory becomes full, a larger chunk of contiguous memory has to be allocated (usually twice the size) and the existing elements are copied into this new chunk. We call this chunk the capacity of the ArrayList object.

2.What are the dis-advantages of Array List (Collections Array List)

* If there is a chance of assigning wrong value we get runtime error.
* Every time we unbox and do operation.

3.In a tabular format write the differences between Collections and generics.

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|  | Collection(Array List) | Generics(List) |
| Name space | System.collections; | System.Collections.Generic; |
| Each element is of what type | Super data type | Any data type |
| Type casting | We need type casting | We doesn’t need type casting |
| Example | ArrayList data=new ArrayList(); | List<int> data=new List<int>(); |

4.Research and find how the values of List<T> are stored in the memory.

* In a List<T> , the memory to store the value types is within the memory allocated for the System. Array (i.e. "Over Here"). In an ArrayList each element is just a reference to a boxed value type, so the actual memory to store each value type is elsewhere on "The Heap", i.e. somewhere "Over There".

5.In a tabular format write all data types in C# and write the respective alias name

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| SNo | Datatype | Alease name |
| 1 | byte | Byte |
| 2 | ushort | UInt16 |
| 3 | uint | Uint32 |
| 4 | ulong | Uint64 |
| 5 | sbyte | SByte |
| 6 | short | Int16 |
| 7 | int | Int32 |
| 8 | long | Int64 |
| 9 | float | Single |
| 10 | double | Double |
| 11 | decimal | Decimal |
| 12 | bool | Boolean |
| 13 | char | Char |
| 14 | string | String |

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