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| *A close up of a logo  Description automatically generated* | *DEPARTMENT OF COMPUTER ENGINEERING* |

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| Semester | S.E. Semester III – Computer Engineering |
| Subject | Object Oriented Programming Using Java (Skill Based Lab) |
| Subject Professor In-charge | Prof. Indu Anoop |
| Laboratory | Online Lab |

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| Roll Number | 20102A0004 | |
| Grade and Subject Teacher’s Signature |  |  |

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| Experiment | 7A | |
| Problem Statement | WAP to demonstrate 2DArray, ArrayList and Vectors. | |
| Resources / Apparatus Required | Hardware: Computer System | Software: jdk 1.8, Eclipse / Notepad++/IntelliJ IDEA |
| Details | An Array is a group of like-typed variables that are referred to by a common name. Arrays in java work differently than they do in C. In java all arrays are dynamically allocated. Array can contain primitives as well as object references of a class depending on the definition of the array. In case of primitive data types, the actual values are stored in contiguous memory locations. In case of objects of a class, the actual objects are stored in heap segment.  The direct superclass of an array type is Object. Every array type implements are interfaces Cloneable and java.io.Serializable. The size of an array must be specified by an int or short value and not long.  Since arrays are objects in java, we can fnd their length using the object property length, this is different than in C where we use sizeof. Java array can be also be used as static field, a local variable or a method parameter. | |
| Code | class arr1 {  public static void main(String [] args) {  int arr[][]={{1,2,3},{2,4,5},{4,4,5}};  //printing 2D array  for(int i=0;i<3;i++)  {  for(int j=0;j<3;j++)  {  System.out.print(arr[i][j]+" ");  }  System.out.println();  } }  } | |
| Output |  | |
| Conclusion | Thus, we successfully learnt how to implement an array in our program. | |