1. C++ language

● In Hindi

a. CodeWithHarry- Cpp playlist (Hindi) (include OOPs)
C++ Tutorials In Hindi
C++ syntax - 1-18 , OOPs - 19-58 (Optional) ,File IO - 59-62 , C++ STL - 63-74

b. Learn C++ Programming (Guided path)The a

c. C++ Programming Language - GFG Docs

d. cplusplus.com - The C++ Resources Network - C++ docs

● In English

1. Tech with Tim - Learn C++ With Me (1-20 C++ basics + STL)

2. FreeCodeCamp (Oneshot 4Hr video):
   https://youtu.be/vLnPwxZdW4Y (C++ basics + OOPS)

3. Practice Questions :

4. Solve C++ - Hackerrank practice (Set the difficulty level and solve accordingly.)

5. C++ STL

Documentation or Articles

1. STL article on HackerEarth
   Standard Template Library | HackerEarth

2. STL article
   The C++ Standard Template Library (STL) - GeeksforGeeks

3. STL Tutorial : C++ STL Tutorial (tutorialspoint.com)

Youtube Videos/Playlist for STL

○ Code N Code
● https://youtube.com/playlist?list=PL2q4fbVm1Ik4OWga4UQR4WlYt
eMiH46zG

○ Codechef
● https://youtube.com/playlist?list=PLQXZIFwMtjowd0uvZcd5B1wL0
hx6xQJVU

○ CodeBeyond (striver)
● https://youtube.com/playlist?list=PLN4aKSfpk8TQ6CqzMRDVUr-jE
pObLiYdq

○ STL
● https://youtube.com/playlist?list=PLauivoElc3gh3RCiQA82MDI-g
JfXQQVnn

○ STL in one Shot by Love Babbar
● https://youtu.be/mOzPZ3hWFVQ

○ Learn STL in 45 minutes (Striver)
● https://youtu.be/zBhVZzi5RdU

61

62 o Practice Questions on Sets & Maps (By Love Babbar

63 ● Set and Map1.pdf - OneDrive (live.com)

64

65 3. DSA Basics

66

67 ●

68 ● 450 DSA Cracker

69

70 4. CP

71   ● Love Babbar (CP roadmap) -

72   https://youtube.com/playlist?list=PL4PCksYQGLJOcaPLgeMFaxaHigPFjB

73   uTG

74

75 5. Intermediate CP

76

77 Good Blog Post Resources about Algorithm and Data Structures

78

79 ARRAYS

80

81 1. Sort an array of 0's 1's 2's without using extra space or sorting algo (EASY)

82   https://leetcode.com/problems/sort-colors/

83

84 2. Repeat and Missing Number (EASY)

85   https://www.geeksforgeeks.org/find-a-repeating-and-a-missing-number/

86

87 3. Merge two sorted Arrays without extra space (HARD) https://www.youtube.com/watch?
   v=hVl2b3bLzBw&list=PLgUwDviBIf0rPG3Ictpu74YWB Q1CaBkm2&index=4

88

89 4. Kadane's Algorithm (EASY)

90   https://www.youtube.com/watch?v=w_KEocd 20&list=PLgUwDviBIf0rPG3Ictpu74YWB
   Q1CaBkm2&index=5

91   Maximum Subarray Sum | Leetcode | Kadane's Algorithm | Brute-Better-Optimal |
   CPP/Java

92

93 5. Merge Overlapping Subintervals (INTERMEDIATE)

94

95 https://www.youtube.com/watch?v=2JzRBPFYbKE&list=PLgUwDviBIf0rPG3Ictpu74YWB
   Q1CaBkm2&index=6

96

97 6. Find the duplicate in an array of N+1 integers. (EASY)
   https://www.youtube.com/watch?v=32Ll35mhWg0&list=PLgUwDviBIf0rPG3Ictpu74YWB
   Q1CaBkm2&index=1

98

99 7. Set Matrix Zeros (INTERMIDIATE) (https://www.youtube.com/watch?
   v=M65xBewcqcI&list=PLgUwDviBIf0rPG3Ictpu74YWB Q1CaBkm2&index=7)

100

101 8. Pascal Triangle (EASY) https://www.youtube.com/watch?
   v=6FLvhQjZqvM&list=PLgUwDviBIf0rPG3Ictpu74YWB Q1CaBkm2&index=8

102

103 9. Next Permutation (INTERMEDIATE) https://www.youtube.com/watch?
   v=LuLCLgMElus&list=PLgUwDviBIf0rPG3Ictpu74YWB Q1CaBkm2&index=9

104

105 10. Inversion of Array (INTERMEDIATE / HARD) https://www.youtube.com/watch?
   v=kQ1mJlwW-c0&list=PLgUwDviBIf0rPG3Ictpu74YWB Q1CaBkm2&index=10

106

107 11. Stock Buy and Sell (EASY) https://www.youtube.com/watch?
   v=eMSfBgbiEjk&list=PLgUwDviBIf0rPG3Ictpu74YWBQ 1CaBkm2&index=11

108

109 12. Rotate Matrix (INTERMEDIATE) https://www.youtube.com/watch?
     v=Y72QeX0Efxw&list=PLgUwDviBIf0rPG3Ictpu74YWB Q1CaBkm2&index=12

110

111 (Hashing)

112

113 1. 2 Sum problem (EASY) https://www.youtube.com/watch?
     v=dRUpbt8vHpo&list=PLgUwDviBIf0rVwua0kKYlsS_ik_ 1lyVK_&index=1

114

115 2. 4 Sum problem (EASY) https://www.youtube.com/watch?
     v=4ggF3tXIAp0&list=PLgUwDviBIf0p4ozDR_kJJkONnb 1wdx2Ma&index=20

116

117 3. Longest Consecutive Sequence (INTERMEDIATE) https://www.youtube.com/watch?
     v=qgizvmgeyUM&list=PLgUwDviBIf0p4ozDR_kJJkONn b1wdx2Ma&index=21

118

119 4. Largest Subarray with 0 sums Three (EASY) https://www.youtube.com/watch?
     v=xmguZ6GbatA&list=PLgUwDviBIf0p4ozDR_kJJkONn b1wdx2Ma&index=22

120

121 5. Count number of subarrays with given XOR(INTERMEDIATE / HARD)
     https://www.youtube.com/watch?v=lO9R5CaGRPY&list=PLgUwDviBIf0p4ozDR_kJJkON
     nb1wdx2Ma&index=23

122

123 6. Longest substring without repeat (INTERMEDIATE) https://www.youtube.com/watch?
     v=qtVh-XEpsJo&list=PLgUwDviBIf0p4ozDR_kJJkONnb 1wdx2Ma&index=25

124

125 LinkedList:-

126

127 1. Reverse a LinkedList (EASY)
128   https://www.youtube.com/watch?v=iRtLEoL-r-g&list=PLgUwDviBIf0p4ozDR_kJJkONnb1
     wdx2Ma&index=26

129

130 2. Find the middle of LinkedList (EASY) https://www.youtube.com/watch?v=sGdwSH8RK-
     o&list=PLgUwDviBIf0p4ozDR_kJJkON nb1wdx2Ma&index=27.

131

132 3. Merge two sorted Linked List (EASY) https://www.youtube.com/watch?
     v=Xb4slcp1U38&list=PLgUwDviBIf0p4ozDR_kJJkONnb 1wdx2Ma&index=28

133

134 4. Remove N-th node from the back of LinkedList (INTERMEDIATE)
     https://www.youtube.com/watch?v=Lhu3MsXZy-Q&list=PLgUwDviBIf0p4ozDR_kJJkONn
     b1wdx2Ma&index=29

135

136 5. Delete a given Node when a node is given. (0(1) solution) (EASY)
     https://www.youtube.com/watch?v=icnp4FJdZ_c&list=PLgUwDviBIf0p4ozDR_kJJkONnb
     1wdx2Ma&index=30

137

138 6. Add two numbers as LinkedList (INTERMEDIATE) https://www.youtube.com/watch?
     v=LBVsXSMOIk4&list=PLgUwDviBIf0p4ozDR_kJJkON nb1wdx2Ma&index=31

139

140 7. Find intersection point of Y LinkedList (INTERMEDIATE)
     https://www.youtube.com/watch?v=u4FWXfgS8jw&list=PLgUwDviBIf0p4ozDR_kJJkONn
     b1wdx2Ma&index=32

141

142 8. Detect a cycle in Linked List (EASY)

143

144 https://www.youtube.com/watch?v=354J83hX7RI&list=PLgUwDviBIf0p4ozDR_kJJkONn
     b1wdx2Ma&index=33

145

146 9. Reverse a LinkedList in groups of size k. (HARD) https://www.youtube.com/watch?
     v=Of0HPkk3JgI&list=PLgUwDviBIf0p4ozDR_kJJkONnb 1wdx2Ma&index=33

147

148 10. Check if a LinkedList is a palindrome or not. (EASY)
     https://www.youtube.com/watch?v=-DtNInqFUXs&list=PLgUwDviBIf0p4ozDR_kJJkONnb
     1wdx2Ma&index=35

149

150 11. Find the starting point of the Loop of LinkedList (Intermediate)
     https://www.youtube.com/watch?v=QfbOhn0WZ88&list=PLgUwDviBIf0p4ozDR_kJJkON
     nb1wdx2Ma&index=36

151

152 12. Flattening of a LinkedList (Hard) https://www.youtube.com/watch?
     v=ysytSSXpAI0&list=PLgUwDviBIf0p4ozDR_kJJkONnb 1wdx2Ma&index=37

153

154 13. Rotate a LinkedList (HARD) https://www.youtube.com/watch?
     v=9VPm6nEbVPA&list=PLgUwDviBIf0p4ozDR_kJJkON nb1wdx2Ma&index=38

155

156 (2-pointer)

157

158 1. Clone a Linked List with random and next pointer(EASY)
     https://www.youtube.com/watch?v=VNf6VynfpdM&list=PLgUwDviBIf0p4ozDR_kJJkONn
     b1wdx2Ma&index=39

159

160 2. 3 sum (EASY) https://www.youtube.com/watch?
     v=onLoX6Nhvmg&list=PLgUwDviBIf0p4ozDR_kJJkON nb1wdx2Ma&index=40

161

162 3. Trapping rainwater (MEDIUM) https://www.youtube.com/watch?
     v=m18Hntz4go8&list=PLgUwDviBIf0p4ozDR_kJJkONn b1wdx2Ma&index=41

163

164 4. Remove Duplicate from Sorted array (MEDIUM) https://www.youtube.com/watch?
     v=Fm_p9lJ4Z_8&list=PLgUwDviBIf0p4ozDR_kJJkONn b1wdx2Ma&index=42

165

166 5. Max consecutive ones (MEDIUM) https://www.youtube.com/watch?
     v=Mo33MjjMlyA&list=PLgUwDviBIf0p4ozDR_kJJkONn b1wdx2Ma&index=43

167

168 (Greedy)

169

170 1. N meeting in one room(EASY) https://www.youtube.com/watch?
     v=II6ziNnub1Q&list=PLgUwDviBIf0p4ozDR_kJJkONnb 1wdx2Ma&index=44

171

172 2. Minimum number of platforms required for a railway(MEDIUM)
     https://www.youtube.com/watch?v=dxVcMDI7vyI&list=PLgUwDviBIf0p4ozDR_kJJkONnb
     1wdx2Ma&index=45

173

174 3. Job sequencing Problem (MEDIUM) https://www.youtube.com/watch?
     v=LjPx4wQaRIs&list=PLgUwDviBIf0p4ozDR_kJJkONn b1wdx2Ma&index=46

175

176 4. Fractional Knapsack Problem(MEDIUM) https://www.youtube.com/watch?
     v=F_DDzYnxO14&list=PLgUwDviBIf0p4ozDR_kJJkON nb1wdx2Ma&index=48

177

178 5. Greedy algorithm to find the minimum number of coins(HARD)
     https://www.youtube.com/watch?v=mVg9CfJvayM&list=PLgUwDviBIf0p4ozDR_kJJkONn
     b1wdx2Ma&index=47

179

180 6. Activity Selection (it is same as N meeting in one room) (HARD)
     https://www.youtube.com/watch?v=II6ziNnub1Q&list=PLgUwDviBIf0p4ozDR_kJJkONnb
     1wdx2Ma&index=44

181

182 Recursion

183

184 1. Subset Sums (HARD) https://www.youtube.com/watch?
     v=rYkfBRtMJr8&list=PLgUwDviBIf0p4ozDR_kJJkONnb 1wdx2Ma&index=52

185

186 2. Subset-II (HARD) https://www.youtube.com/watch?
     v=RIn3gOkbhQE&list=PLgUwDviBIf0p4ozDR_kJJkONn b1wdx2Ma&index=53

187

188 3. Combination sum-1 (HARD) https://www.youtube.com/watch?
     v=OyZFFqQtu98&list=PLgUwDviBIf0p4ozDR_kJJkONn b1wdx2Ma&index=49

189

190 4. Combination sum-2 (HARD) https://www.youtube.com/watch?
     v=G1fRTGRxXU8&list=PLgUwDviBIf0p4ozDR_kJJkON nb1wdx2Ma&index=50

191

192 5. Palindrome Partitioning (HARD) https://www.youtube.com/watch?
     v=WBgsABoClE0&list=PLgUwDviBIf0p4ozDR_kJJkON nb1wdx2Ma&index=51

193

194 6. K-th permutation Sequence (HARD) https://www.youtube.com/watch?
     v=wT7gcXLYoao&list=PLgUwDviBIf0p4ozDR_kJJkONn b1wdx2Ma&index=55

195

196 Permutations and recursion

197

198 1. Print all permutations of a string/array (HARD) https://www.youtube.com/watch?
     v=f2ic2Rsc9pU&list=PLgUwDviBIf0p4ozDR_kJJkONnb 1wdx2Ma&index=52

199

200 2. N queens Problem (HARD) https://www.youtube.com/watch?
     v=i05Ju7AftcM&list=PLgUwDviBIf0p4ozDR_kJJkONnb 1wdx2Ma&index=57

201

202 3. Sudoku Solver(HARD) https://www.youtube.com/watch?
     v=FWAIf_EVUKE&list=PLgUwDviBIf0p4ozDR_kJJkON nb1wdx2Ma&index=58

203

204 4. M colouring Problem (HARD) https://www.youtube.com/watch?
     v=wuVwUK25Rfc&list=PLgUwDviBIf0p4ozDR_kJJkON nb1wdx2Ma&index=59

205

206 5. Rat in a Maze (HARD) https://www.youtube.com/watch?
     v=bLGZhJlt4y0&list=PLgUwDviBIf0p4ozDR_kJJkONnb 1wdx2Ma&index=60

207

208 6. Word Break (print all ways) (Will be covered later in DP series)

209

210 (Binary Search)

211

212 1. The N-th root of an integer (use binary search) (square root, cube root, ..)
     (Intermediate) https://www.youtube.com/watch?
     v=WjpswYrS2nY&list=PLgUwDviBIf0p4ozDR_kJJkONn b1wdx2Ma&index=61

213

214 2. Matrix Median (Hard) https://www.youtube.com/watch?
     v=63fPPOdIr2c&list=PLgUwDviBIf0p4ozDR_kJJkONnb 1wdx2Ma&index=62

215

216 3. Find the element that appears once in sorted array, and rest element appears
     twice (Binary search) (Hard)

217

218 https://www.youtube.com/watch?v=PzszoiY5XMQ&list=PLgUwDviBIf0p4ozDR_kJJ
     kONnb1wdx2Ma&index=63

219

220 4. Search element in a sorted and rotated array/ find pivot where it is turned
     (Intermediate)

221   https://www.youtube.com/watch?v=r3pMQ8-Ad5s&list=PLgUwDviBIf0p4ozDR_kJJkONn
     b1wdx2Ma&index=64

222

223 5. Median of 2 sorted arrays (Intermediate) https://www.youtube.com/watch?
     v=NTop3VTjmxk&list=PLgUwDviBIf0p4ozDR_kJJkONn b1wdx2Ma&index=65

224

225 6. K-th element of two sorted arrays (Intermediate) https://www.youtube.com/watch?
     v=nv7F4PiLUzo&list=PLgUwDviBIf0p4ozDR_kJJkONn b1wdx2Ma&index=66

226

227 7. Allocate Minimum Number of Pages (Intermediate) https://www.youtube.com/watch?
     v=gYmWHvRHu-s&list=PLgUwDviBIf0p4ozDR_kJJkON nb1wdx2Ma&index=69

228

229 8. Aggressive Cows (Intermediate) https://www.youtube.com/watch?
     v=wSOfYesTBRk&list=PLgUwDviBIf0p4ozDR_kJJkON nb1wdx2Ma&index=70

230

231 (Stack and Queue)

232

233 1. Implement Stack Using Arrays (Intermediate) https://www.youtube.com/watch?
     v=GYptUgnIM_I&list=PLgUwDviBIf0p4ozDR_kJJkONn b1wdx2Ma&index=68

234

235 2. Implement Queue Using Arrays (Intermediate) https://www.youtube.com/watch?
     v=M6GnoUDpqEE&list=PLgUwDviBIf0p4ozDR_kJJkO Nnb1wdx2Ma&index=72

236

237 3. Implement Stack using Queue (using single queue) (Intermediate)
     https://www.youtube.com/watch?v=jDZQKzEtbYQ&list=PLgUwDviBIf0p4ozDR_kJJkONn
     b1wdx2Ma&index=74

238

239 4. Implement Queue using Stack (0(1) amortised method) (Intermediate)
     https://www.youtube.com/watch?v=3Et9MrMc02A&list=PLgUwDviBIf0p4ozDR_kJJkONn
     b1wdx2Ma&index=75

240

241 5. Check for balanced parentheses (Intermediate) https://www.youtube.com/watch?
     v=wkDfsKijrZ8&list=PLgUwDviBIf0p4ozDR_kJJkONnb1 wdx2Ma&index=74

242

243 6. Next Greater Element (Intermediate) https://www.youtube.com/watch?
     v=Du881K7Jtk8&list=PLgUwDviBIf0p4ozDR_kJJkONn b1wdx2Ma&index=75

244