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| Course: | Advance Algorithm Laboratory |
| Course Code: | DJ19CEL602 |
| Experiment No.: | 02 |

**AIM: Hiring Problem**

**CODE:**

Ascending:

import random

candidate = [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

interview = []

hire = []

for i in range(0, 10):

  x = random.choice(candidate)

  candidate.remove(x)

  interview.append(x)

print(interview)

for i, num in enumerate(interview, 1):

  largest\_num = max(interview[:i])

  print(f"Hired: {largest\_num}, till {i} interviews")

  hire.append(largest\_num)

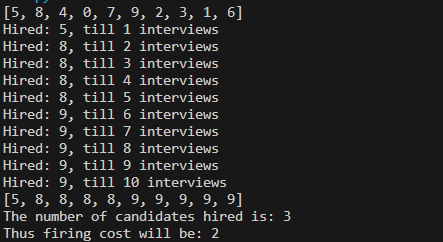
print(hire)

print("The number of candidates hired is:", len(set(hire)))

cost = len(set(hire)) - 1

print("Thus firing cost will be:", cost)

**OUTPUT:**

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**Randomized:**

import random

candidates = [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

interviewed\_candidates = []

hired\_candidates = []

# Randomly select and interview candidates

for i in range(len(candidates)):

    selected\_candidate = random.choice(candidates)

    interviewed\_candidates.append(selected\_candidate)

    candidates.remove(selected\_candidate)

# Hire the best candidate so far

max=-1

for i in range(len(interviewed\_candidates)):

    if interviewed\_candidates[i] > max:

        max=interviewed\_candidates[i]

        hired\_candidates.append(interviewed\_candidates[i])

# Calculate firing cost

firing\_cost = len(hired\_candidates) - 1

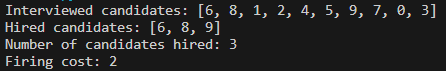
print("Interviewed candidates:", interviewed\_candidates)

print("Hired candidates:", hired\_candidates)

print("Number of candidates hired:", len(hired\_candidates))

print("Firing cost:", firing\_cost)

**OUTPUT:**

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**CONCLUSION:**  Hence we implemented the Hiring Problem.