***Week – 4 (19.04.2021 – 25.04.2021)***

***Topics Completed:***

1. Bit Manipulation:
   * Bitwise AND
   * Bitwise OR
   * Bitwise XOR
   * Bitwise Shift Left
   * Bitwise Shift Right
   * Bitwise complement
   * Setting bit
   * Clearing bit
   * Toggling bit
   * Isolating right most bit
   * Multiplying and dividing by 2k

***Solved Problems based on Weekly Task:***

|  |  |  |  |
| --- | --- | --- | --- |
| S.No. | Problem Name | Problem Number | Platform |
| 1. | Number of 1 Bits | 191 | Leetcode |
| 2. | Number Complement | 476 | Leetcode |
| 3. | Convert Binary Number in a Linked List to Integer | 1290 | Leetcode |
| 4. | XOR Operation in an Array | 1486 | Leetcode |
| 5. | Minimum Flips to Make a OR b Equal to c | 1318 | Leetcode |
| 6. |  |  |  |

***15 Solved Random Problems:***

|  |  |  |  |
| --- | --- | --- | --- |
| S.No. | Problem Name | Problem Number | Platform |
| 1. | Student Attendance Record I | 551 | Leetcode |
| 2. | ZigZag Conversion | 6 | Leetcode |
| 3. | Valid Parentheses | 20 | Leetcode |
| 4. | Longest Common Prefix | 14 | Leetcode |
| 5. | Daily Temperatures | 739 | Leetcode |
| 6. | Asteroid Collision | 735 | Leetcode |
| 7. | K-diff Pairs in an Array | 532 | Leetcode |
| 8. | Reverse Vowels of a String | 345 | Leetcode |
| 9. | Maximum Ascending Subarray Sum | 1800 | Leetcode |
| 10. | N-th Tribonacci Number | 1137 | Leetcode |
| 11. | Count Primes | 204 | Leetcode |
| 12. | Number of Digit One | 233 | Leetcode |
| 13. | Minimum Size Subarray Sum | 209 | Leetcode |
| 14. | Largest Number | 179 | Leetcode |
| 15. | Minimum Subsequence in Non-Increasing Order | 1403 | Leetcode |

***Problems in PDF:***

|  |  |  |  |
| --- | --- | --- | --- |
| S.No. | Problem Name | Problem Number | Platform |
| 1. | Reverse Bits | 120 | Leetcode |
| 2. | Power of Two | 231 | Leetcode |
| 3. | Prime Number of Set Bits in Binary Representation (Counting no. of set bits) | 762 | Leetcode |
| 4. | Count number of bits to be flipped to convert A to B | - | Geeks for geeks |
| 5. | Compute the integer absolute value (abs) without branching | - | Geeks for geeks |
| 6. | Turn off the rightmost set bit | - | Geeks for geeks |
| 7. | Position of rightmost set bit | - | Geeks for geeks |
| 8. | Add two numbers without using arithmetic operators | - | Geeks for geeks |
| 9. | Rotate bits of a number | - | Geeks for geeks |
| 10. | Swap all odd and even bits | - | Geeks for geeks |
| 11. | Perform nibble wise swap | - | Geeks for geeks |
| 12. | Find position of the only set bit | - | Geeks for geeks |
|  |  |  |  |

***Problems Not Solve in First Try:***

|  |  |  |  |
| --- | --- | --- | --- |
| S.No. | Problem Name | Problem Number | Platform |
| 1. | Reverse Bits | 120 | Leetcode |
| 2. | Number of 1 Bits | 191 | Leetcode |
| 3. | Power of Two | 231 | Leetcode |
| 4. | ZigZag Conversion | 6 | Leetcode |
| 5. | Daily Temperatures | 739 | Leetcode |
| 6. | Count Primes | 204 | Leetcode |
| 7. | Number of Digit One | 233 | Leetcode |
| 8. | Minimum Size Subarray Sum | 209 | Leetcode |
| 9. | Largest Number | 179 | Leetcode |
| 10. | Minimum Flips to Make a OR b Equal to c | 1318 | Leetcode |
| 11. | Turn off the rightmost set bit | - | Geeks for geeks |
| 12. | Add two numbers without using arithmetic operators | - | Geeks for geeks |
| 13. | Rotate bits of a number | - | Geeks for geeks |
|  | Swap all odd and even bits | - | Geeks for geeks |
| 14. | Perform nibble wise swap | - | Geeks for geeks |
| 15. | Find position of the only set bit | - | Geeks for geeks |
|  |  |  |  |