REASERCH DOCUMENT ON BITWISE OPERATORS

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EDUCATION

Degree	Institute	Score
B TECH CSE (2019-2023)	MVR COLLEGE OF ENGINEERING	8.05 CGPA
INTERMEDIATE(2019)	SRSVRGNR JR COLLEGE	9.94GPA
MATRICULATION(2017	ST MARY'S HIGH SCHOOL	10 GPA

SKILLS

- JAVA ☆ ☆ ☆ ☆
- SQL ☆ ☆ ☆ ☆
- POWER BI ☆ ☆ ☆ ☆
- PYTHON ☆ ☆ ☆
- JAVASCRIPT ☆ ☆ ☆
- COMMUNICATION ☆ ☆ ☆
- HTML, CSS ☆ ☆

AWARDS

- QUALIFIED IN DAKSHINA BHARAT HINDI PRACHAR SABHA
- SECURED THIRD IN DISTRICT LEVEL SPELL BEE COMPETITION

EXPERIENCE

KODNEST, BANGALORE – FULL STACK JAVA INTERN

JANUARY 20 - MAY

KodNest is an EDTech company whose mission has been to ensure to make Talent and Opportunities meet and we achieve this through our Software applications

PROJECTS

SPAMMER DETECTION AND FAKE USER IDENTIFICATION - MAJOR PROJECT

In this paper, we perform a review of techniques used for detecting spammers on Twitter.(i) fake content, (ii) spam based on URL, (iii) spam in trending topics, and (iv) fake users.

HANDWRITTEN CHARACTER RECOGNITION USING NEURAL NETWORKS – MINOR PROJECT

The main aim of this project is to design expert system for, "HCR using Neural Network " that can e"ectively recognize a particular character of type format using the Artificial Neural Network approach.

LANGUAGES

- ENGLISH
- HINDI
- TELUGU

REASERCH DOCUMENT ON
BITWISE OPERATORS

RESEARCH QUESTION :

BITWISE OPERATORS IN JAVA

BITWISE OPEARTORS IN JAVA :-

Bitwise operators are used to performing the manipulation of individual bits of a number.There are six bitwise operators available in Java:

- **Bitwise AND (&)**
- **Bitwise OR (|)**
- **Bitwise XOR (^)**
- **Bitwise complement (~)**
- **Left shift (<<)**
- **Right shift (>>)**

1. Bitwise AND (&) : -This operator is a binary operator, denoted by '&.'.It returns bit by bit AND of input values, i.e., if both bits are 1, it gives 1, else it shows 0.

EX:-

```
   a = 5 = 0101
   b = 7 = 0111
       Bitwise AND Operation of 5 and 7
             0101
           & 0111
           ________
           0101  = 5
```

2. **Bitwise OR (|):-**This operator is a binary operator, denoted by '|'. It returns bit by bit OR of input values, i.e., if either of the bits is 1, it gives 1, else it shows 0.

EX:-

```
a = 5 = 0101
b = 7 = 0111


Bitwise OR Operation of 5 and 7
    0101
  | 0111
  ________
  0111  = 7
```

3. **Bitwise XOR (^)** :-This operator is a binary operator, denoted by '^.' It returns bit by bit XOR of input values, i.e., if corresponding bits are different, it gives 1, else it shows 0.

EX:-

```
a = 5 = 0101 (In Binary)
b = 7 = 0111 (In Binary)
Bitwise XOR Operation of 5 and 7
   0101
 ^ 0111
 ________
   0010  = 2
```

4. **Bitwise Complement (~):-**This operator is a unary operator, denoted by '~.' It returns the one's complement representation of the input value, i.e., with all bits inverted, which means it makes every 0 to 1, and every 1 to 0.

EX:-

a = 5 = 0101 (In Binary)

Bitwise Complement Operation of 5

~ 0101

_____

1010 = 10(DECIMAL)

5 **.Left shift (<<)**: Shifts the bits of the left operand to the left by a specified number of positions. The vacant positions are filled with zeros.

EX:

x=10, X<<2

after shifting the bits to the left the binary number **00001010** (in decimal 10) becomes **00101000(in decimal 40)**

NOTE: left shift defines multiplying the number the given number with 2 as per given no of times

6. Bitwise Right Shift Operator:-Shifts the bits of the left operand to the right by a specified number of positions. The vacant positions are filled with the sign bit (the leftmost bit for signed types).

EX:-

If **x=10**, then calculate **x>>2**

after shifting the bits to the right the binary number **00001010** (in decimal 10) becomes **00000010** (in decimal 2).

NOTE: Right shift defines dividing the number the given number with 2 as per given no of times.