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```
Node* insert (node, key) {

    if (node == NULL)
        return (newNode(key));

    if (key < node->key)
        node->left = insert (node->left, key);

    else if (key > node->key)
        node->right = insert (node->right, key);
    else
        return node;

    node->h = 1 + max(h(node->l), h(node->r));

    int b = getBalance (node);  // balance.

    if (b > 1 && key < node->l->key)
        return rightRotate (node);

    if (b < -1 && key > node->r->key)
        return leftRotate (node);

    if (b > 1 && key > node->l->key)
        node->l = leftRotate (node->l); return rightRotate(node);
```


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```
if (b ~~<~~ -1 && key < node->r->key){
    node->r = rightRotate(node->r);
    return leftRotate(node);
}
return ~~Node~~ node;
}

~~Node~~ del(root, k){
    if (root = NULL)
        return root;
    if (k < root->k)
        root->l = del(root->l, k);
    else if (k > root->k)
        root->r = del(root->r, key);
    else {
        if ((root->l = null) || (root->r = NULL)) {
            node *temp = root->b ? root->l : ~~root->r~~ root->r;
            if (temp = null) {
                temp = root;  root = NULL;}
            else
            * root = *temp;
            free(temp);
        }
```

```
    else {
        node * temp = minValueNode (root->r);
        root->k = temp->k;
        root->r = del (root->r, temp->k);
    }
}
if (root == NULL)
return root;
root->h = 1 + max (h(root->l), h(root->r));
int b = getB (root);
if (b > 1 && getB (root->l) >= 0)
    return rightRotate (root);
```

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```
if (b > 1 && getB(root->l) < 0) {
    root->l = leftRotate(root->l);
    return rightRotate(root);
}

if (b < -1 && getB(root->r) <= 0) {
    return leftRotate

if (b < -1 && getB(root->r) > 0)
{ root->r = rightRotate(root->r);
    return leftRotate(root);
}
return root;
}

node leftRotate(x) {

y->left = x;  x->right = T2;

{ return y; }
}

node* rightRotate(y) {

x->right = y; y->left = T2;
return x;
}
```

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