

## LAB 11 Program 10

```

void decreaseKey (Node *H, int old_val, int new_val)
{
    Node *node = findNode (H, old_val);
    if (node == NULL)
        return;
    node->val = new_val;
    Node *parent = node->parent;
    while (parent != NULL && node->val < parent->val)
    {
        swap (node->val, parent->val);
        node = parent;
        parent = parent->parent;
    }
}

Node *binomialHeapDelete (Node *h, int val)
{
    if (h == NULL)
        return NULL;
    decreaseKey (h, val, INT_MIN);
    return extractMinBHeap (h);
}

Node *findNode (Node *h, int val)
{
    if (h == NULL) return NULL;
    if (h->val == val) return h;
    Node *res = findNode (h->child, val);
    if (res != NULL) return res;
    return findNode (h->sibling, val);
}
    
```