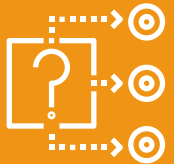# PR&SD

Giovedì 13 Maggio 2021
Ore 15:00

Riferimenti & Contatti

Luigi Di Biasi
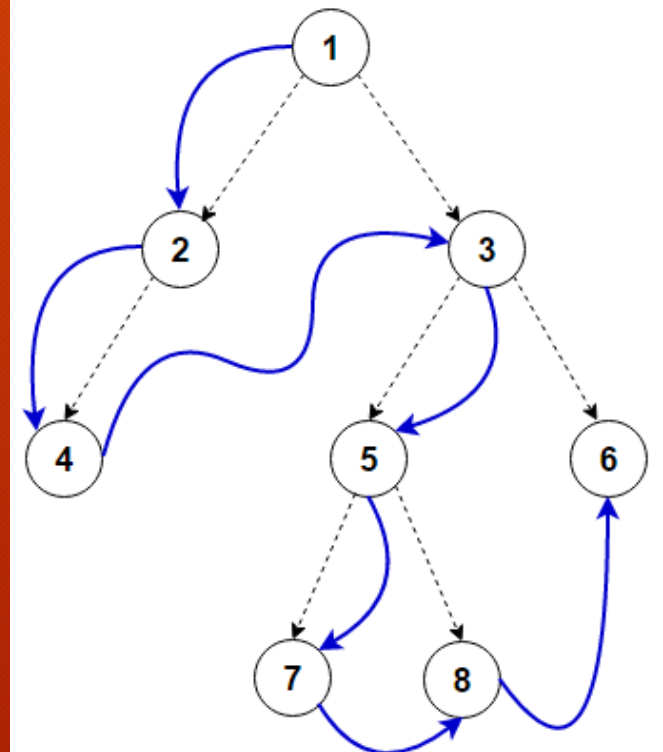email: ldibiasi@unisa.it
Mobile: +39 331 10 41 480 *

* Whatsapp, Telegram o Signal! **<u>NO CHIAMATE</u>**. Se necessario, apriamo una call su Team / Meet o Zoom.

Alberi e visita pre-order

```
void itPreorder(BTree bt){
    BTree left, right;
    List ls = newList();
    addHead(ls, bt);
    while (!isEmpty(ls)){
        BTree node = getHead(ls);
        outputItem(node->value);
        removeHead(ls);
        if ((right = getRight(node))!=NULL)
            addHead(ls, right);
        if ((left = getLeft(node))!=NULL)
            addHead(ls, left);
    }
}// chiude itPreorder
```
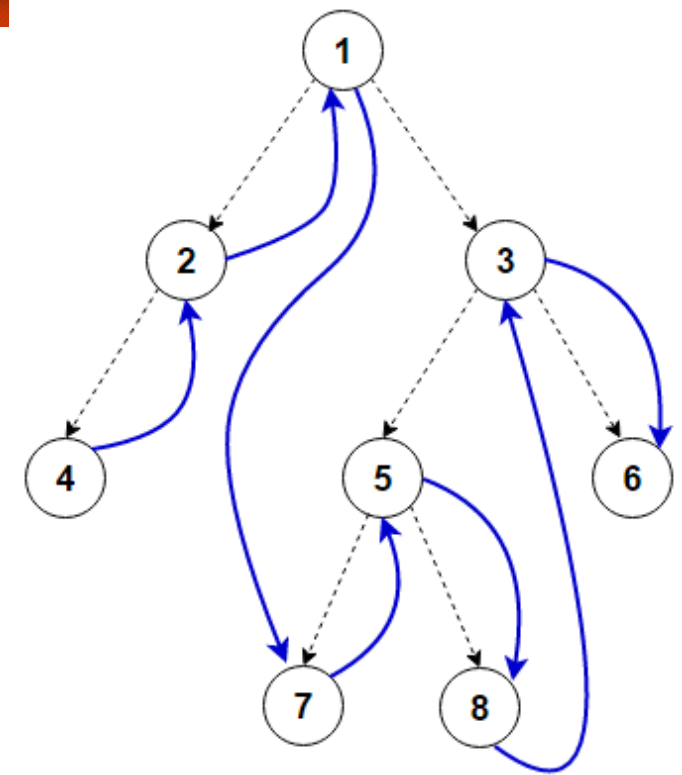

Preorder: 1, 2, 4, 3, 5, 7, 8, 6

Visita in-order

```
void itInOrder(BTree T) {
        List ls = newList();
        BTree curr;
        curr = T;

        while(!isEmpty(ls) || curr) {
                if(curr) { /* Discesa a sx */
                        addHead(ls,curr);
                        curr = getLeft(curr);
                }
                else { /* Visita e discesa a dx */
                        curr = removeHead(ls);
                        outputItem(curr->value);
                        curr = getRight(curr); /* Discesa a dx */
                }
        }
}//chiude itInOrder
```
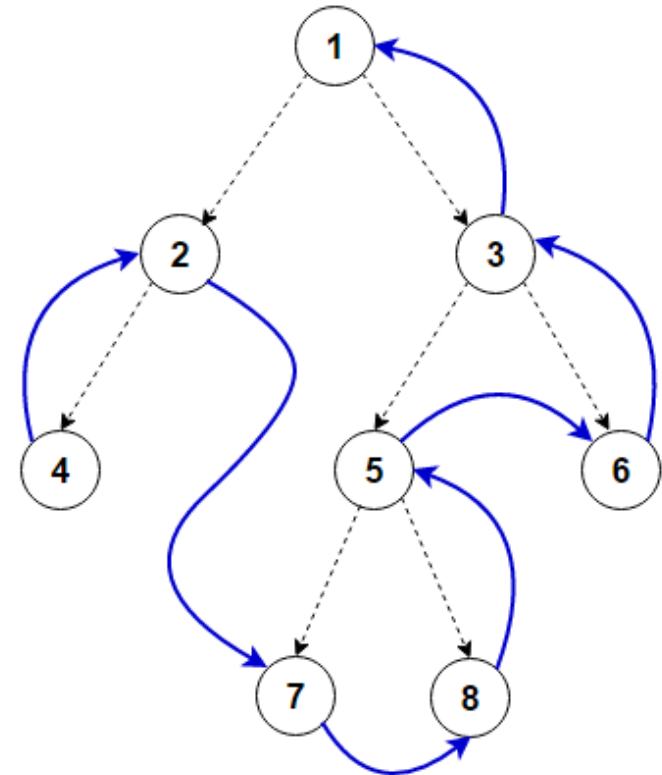
Inorder: 4, 2, 1, 7, 5, 8, 3, 6

Visita Post-Order

```
void itPostOrder(BTree T){
            BTree last, curr;
            last = NULL;
            curr = T;
            List ls = newList();
            while(!isEmpty(ls) || curr) {
                    if(curr) { /* Discesa a sx */
                            addHead(ls,curr);
                            curr = getLeft (curr);
                    }
                    else { /* Visita o discesa a dx */
                            curr = getHead(ls);
                            if (getRight (curr)  && last != getRight (curr)){
                                    curr = getRight (curr); /* Discesa a dx */
                                    }
                                    else {
                                    last = curr;
                                    outputItem(curr->value);
                                    removeHead(ls);
                                    curr = NULL;
                            }
                    }
            }
}//chiude itPostOrder
```


Postorder: 4, 2, 7, 8, 5, 6, 3, 1