

A decorative graphic on the left side of the slide. It consists of a green rounded square with a dashed border. A vertical red line with a dashed border passes through the center of the green square. A horizontal purple line with a dashed border extends from the right side of the green square across the slide.

Stage 2. External Merge Sort

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Goal

- Given
 - A file
 - Containing a list of integer tuples (e.g., $\langle 5, 10000000 \rangle$)
- Return
 - A file
 - Containing every node including leaf and non leaf nodes
 - Key
 - The first integer of each tuple is key
 - And the second integer is pointer (=value)



Code Template

- We provide a package of
 - A maven project created in Eclipse
- It contains
 - Template codes
(edu.hanyang.submit.TinySEBPlustree.java)
 - TinySE framework (lib/tinyse-0.0.1-SNAPSHOT.jar) ← to be updated on every stage
 - Interface files (e.g., BPlusTree.java)
 - Indexer and query processor codes which will complete a search engine by connecting your submissions



To Use Code Template

- Complete *edu.hanyang.submit.TinySEBPlusTree*
- By implementing the interface:

```
package edu.hanyang.indexer;
```

```
public interface BPlusTree {  
    public void open(String filepath, int blocksize, int nblocks);  
    public void insert(int key, int val);  
    public int search(int key);  
    public void close();  
}
```



Constrain & Submit

- How to submit
 - Run “maven package”
 - Submit **<your student ID>-0.0.1-SNAPSHOT.jar** file (you can find it from <project dir>/target/)
- If any question, contact TA
 - Keonwoo Kim (김건우)
 - kdbml314@gmail.com
 - Room: 4공학관 314호
- Due date
 - May 15 (11:59pm) **(WE HAVE CLASS AT MAY 15!)**



Delay

- Due date
 - May 22 (11:59pm)
- Delay
 - You have only a single chance for delayed submission
 - Everyone can submit for the second submission
- Ranking rule
 - Top 1, 2 and 3 rank is selected from the first submissions
 - The lower ranks are determined from all submissions