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Batch: B

Title: Implement Greedy search algorithm for Selection Sort

```
package Selection_Sort;
```

```
public class GreedyAprochSelectionSort {
```

```
    public static void selectionSort(int[] arr) {  
        int n = arr.length;
```

```
        for (int i = 0; i < n - 1; i++) {
```

```
            int minIndex = i;  
            for (int j = i + 1; j < n; j++) {  
                if (arr[j] < arr[minIndex]) {  
                    minIndex = j;  
                }  
            }  
        }
```

```
        int temp = arr[minIndex];  
        arr[minIndex] = arr[i];  
        arr[i] = temp;
```

```
        System.out.print("Iteration " + (i + 1)  
+ ": ");
```

```
        for (int k = 0; k < n; k++) {  
            System.out.print(arr[k] + " ");  
        }  
        System.out.println();
```

```
    }  
}
```

```

public static void main(String[] args) {
    int[] arr = {64, 25, 12, 22, 11};

    System.out.print("Initial array: ");
    for (int i = 0; i < arr.length; i++) {
        System.out.print(arr[i] + " ");
    }
    System.out.println();
    selectionSort(arr);
}
}

```

Output :

The screenshot shows the Eclipse IDE with a Java project named 'pp1 - IS practical'. The package explorer on the left shows the project structure, including a 'src' package with a 'GreedyAprochSelectionSort.java' file. The editor displays the following code:

```

7
8
9      for (int i = 0; i < n - 1; i++) {
10
11          int minIndex = i;
12          for (int j = i + 1; j < n; j++) {
13              if (arr[j] < arr[minIndex]) {

```

The console output shows the execution of the program:

```

Initial array: 64 25 12 22 11
Iteration 1: 11 25 12 22 64
Iteration 2: 11 12 25 22 64
Iteration 3: 11 12 22 25 64
Iteration 4: 11 12 22 25 64

```

The bottom status bar shows the system clock as 7:32 PM on 5/8/2023.