```java
/** Tamir Krief, Iaian Milton, Blessing Abumere  */
import java.io.FileReader;
import java.util.ArrayList;
import java.util.Scanner;
import java.io.FileNotFoundException;

public class Assignment4{
    /** reads the file and converts it to an int array */
    public static int[] inputFile(String filename) {
        try (Scanner console = new Scanner(new FileReader(filename))) {
            //size is the first number
            final int n = console.nextInt();

            //reads ints in the file
            int[] A = new int[n];
            for (int i = 0; i < n; i++)
                A[i] = console.nextInt();

            return A;
        }catch(FileNotFoundException e) {
            System.err.println("File not found: '" + filename + "'");
        }

        return null;
    }

    //Extended-Bottom-Up-Cut-Rod(p,n) method to compute max revenue and cuts
    public static int[] extBottomUpCutRod(int[] p, int n) {
        int[] r = new int[n + 1];
        int[] s = new int[n + 1];

        r[0] = 0; //base case

        for (int j = 1; j <= n; j++) {
            int q = Integer.MIN_VALUE;
            for (int i = 1; i <= j; i++) {
                if (q < p[i - 1] + r[j - 1]) {
                    q = p[i - 1] + r[j - 1];
                    s[j] = i;
                }
            }
            r[j] = q;
        }

        return new int[]{r[n], s[n]};
    }

    //Print-Cut-Rod-Solution(p,n) method to print the solution
    public static void printCutRodSolution(int[] p, int n) {
        int[] r = new int[n + 1];
        int[] s = new int[n + 1];
        ArrayList<Integer> cuts = new ArrayList<>();

        r[0] = 0;

        for (int j = 1; j <= n; j++) {
            int q = Integer.MIN_VALUE;
            for (int i = 1; i <= j; i++) {
                if (q < p[i - 1] + r[j - 1]) {
                    q = p[i - 1] + r[j - 1];
                    s[j] = i;
                }
            }
            r[j] = q;
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        }

        while (n > 0) {
            cuts.add(s[n]);
            n = n - s[n];
        }

        System.out.println("Maximum Revenue: " + r[r.length - 1]);
        System.out.println("Cuts yielding this revenue: " + cuts);
    }

    public static void main(String[] args) {
        Scanner console = new Scanner(System.in);

        System.out.print("Enter the filename: ");
            String filename = console.nextLine();
        int[] prices = inputFile(filename);

        console.close();
        if (prices == null) {
            System.out.println("Error reading the input file.");
            return;
        }

        int rodLength = prices.length;

        printCutRodSolution(prices, rodLength);

    }
}
```