

# Infix to Postfix, Infix to Prefix, dan Evaluation Implementasi Struktur Data Stack Perancangan Struktur Data

Nama : Faturrohman Fairuz Zaki  
NIM : 22106050012  
Kelas : Informatika C

```
197
198
199 def main():
200     print("# Selamat datang di Program infix, postfix, dan prefix #")
201     print("=====# oleh: Faturrohman Fairuz Zaki #=====")
202     print("=====")
203     print("1. Infix to Postfix")
204     print("2. Infix to Prefix")
205     print("3. Keluar Program")
206     choice = input("Pilihan Anda : ")
207     return choice
208
209 while True:
210     choice = main()
211     if choice == "1":
212         infix = input("Masukkan infix notation : ")
213         postfix = infix_to_postfix(infix)
214         obj = Evaluate(len(infix))
215         postfixEval = obj.evaluatePostfix(postfix)
216         print("Postfix notation : " + postfix)
217         print("Postfix evaluation: " + str(postfixEval))
218     elif choice == "2":
219         infix = input("Masukkan infix notation : ")
220         prefix = infix_to_prefix(infix)
221         obj = Evaluate(len(infix))
222         prefixEval = obj.evaluatePrefix(prefix)
223         print("Prefix notation : " + prefix)
224         print("Prefix evaluation: " + str(prefixEval))
225     elif choice == "3":
226         os.system('cls' if os.name == 'nt' else 'clear')
227         print("Terima Kasih")
228         exit()
229     else:
230         os.system('cls' if os.name == 'nt' else 'clear')
231         print("Input tidak valid!")
```

Output:

```
/usr/local/bin/python3 "/Users/Fatur/Documents/Kuliah/SEMESTER 5/Tugas/Tugas 5/tugasStack.py"
Fatur@192 Tugas 5 % /usr/local/bin/python3 "/Users/Fatur/Documents/Kuliah/SEMESTER 5/Tugas/Tugas 5/tugasStack.py"
# Selamat datang di Program infix, postfix, dan prefix #
=====# oleh: Faturrohman Fairuz Zaki #=====
=====
1. Infix to Postfix
2. Infix to Prefix
3. Keluar Program
Pilihan Anda : 1
Masukkan infix notation : 1+2*3
Postfix notation : 123*+
Postfix evaluation: 7
# Selamat datang di Program infix, postfix, dan prefix #
=====# oleh: Faturrohman Fairuz Zaki #=====
=====
1. Infix to Postfix
2. Infix to Prefix
3. Keluar Program
Pilihan Anda : 1
```

Infix to Postfix Notation (Python)

```
tugasStack.py x
tugasStack.py > ...

197
198
199 def main():
200     print("# Selamat datang di Program infix, postfix, dan prefix #")
201     print("===== oleh: Faturrohman Fairuz Zaki #=====")
202     print("1. Infix to Postfix")
203     print("2. Infix to Prefix")
204     print("3. Keluar Program")
205     choice = input("Pilihan Anda : ")
206     return choice
207
208 while True:
209     choice = main()
210     if choice == "1":
211         infix = input("Masukkan infix notation : ")
212         postfix = infix_to_postfix(infix)
213         obj = Evaluate(len(infix))
214         postfixEval = obj.evaluatePostfix(postfix)
215         print("Postfix notation : " + postfix)
216         print("Postfix evaluation: " + str(postfixEval))
217     elif choice == "2":
218         infix = input("Masukkan infix notation : ")
219         prefix = infixToPrefix(infix)
220         obj = Evaluate(len(infix))
221         prefixEval = obj.evaluatePrefix(prefix)
222         print("Prefix notation : " + prefix)
223         print("Prefix evaluation : " + str(prefixEval))
224     elif choice == "3":
225         os.system('cls' if os.name == 'nt' else 'clear')
226         print("Terima Kasih")
227         exit()
228     else:
229         os.system('cls' if os.name == 'nt' else 'clear')
230         print("Input tidak valid!")

/usr/local/bin/python3 "/Users/Fatur/Documents/Kuliah/SEMESTER 5/Tugas/Tugas 5/tugasStack.py"
Fatur@192 Tugas 5 % /usr/local/bin/python3 "/Users/Fatur/Documents/Struktur Data/Tugas/Tugas 5/tugasStack.py"
# Selamat datang di Program infix, postfix, dan prefix #
===== oleh: Faturrohman Fairuz Zaki #=====
1. Infix to Postfix
2. Infix to Prefix
3. Keluar Program
Pilihan Anda : 2
Masukkan infix notation : 1+2*3
Prefix notation : +1*23
Prefix evaluation : 7
# Selamat datang di Program infix, postfix, dan prefix #
===== oleh: Faturrohman Fairuz Zaki #=====
1. Infix to Postfix
2. Infix to Prefix
3. Keluar Program
Pilihan Anda : 1
```

Ln 220, Col 35 Tab Size: 4 UTF-8 LF Python

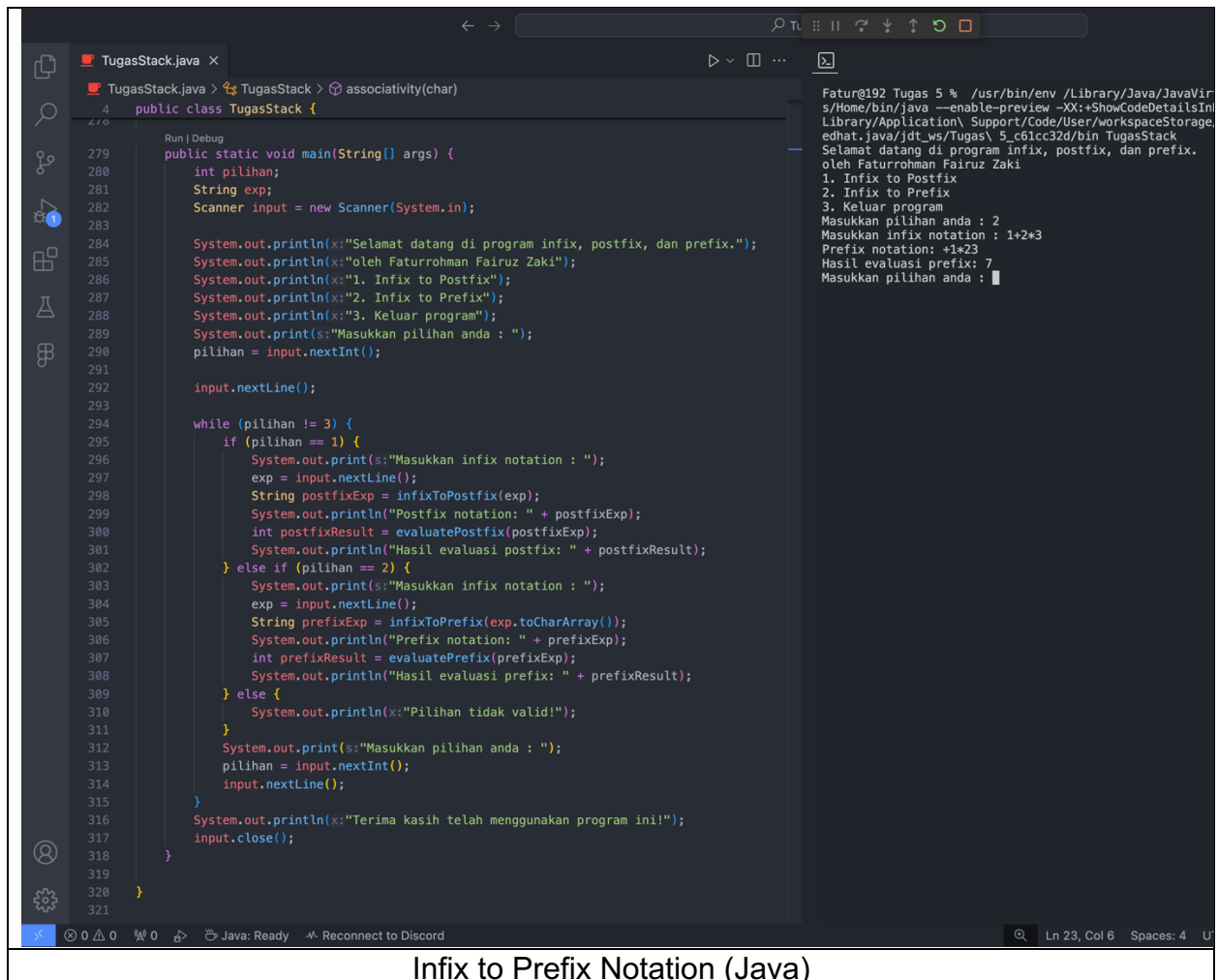
## Infix to Prefix Notation (Python)

```
TugasStack.java x
TugasStack.java > TugasStack > associativity(char)
4 public class TugasStack {

Run | Debug
279 public static void main(String[] args) {
280     int pilihan;
281     String exp;
282     Scanner input = new Scanner(System.in);
283
284     System.out.println("Selamat datang di program infix, postfix, dan prefix.");
285     System.out.println("oleh Faturrohman Fairuz Zaki");
286     System.out.println("1. Infix to Postfix");
287     System.out.println("2. Infix to Prefix");
288     System.out.println("3. Keluar program");
289     System.out.print("Masukkan pilihan anda : ");
290     pilihan = input.nextInt();
291
292     input.nextLine();
293
294     while (pilihan != 3) {
295         if (pilihan == 1) {
296             System.out.print("Masukkan infix notation : ");
297             exp = input.nextLine();
298             String postfixExp = infixToPostfix(exp);
299             System.out.println("Postfix notation: " + postfixExp);
300             int postfixResult = evaluatePostfix(postfixExp);
301             System.out.println("Hasil evaluasi postfix: " + postfixResult);
302         } else if (pilihan == 2) {
303             System.out.print("Masukkan infix notation : ");
304             exp = input.nextLine();
305             String prefixExp = infixToPrefix(exp.toCharArray());
306             System.out.println("Prefix notation: " + prefixExp);
307             int prefixResult = evaluatePrefix(prefixExp);
308             System.out.println("Hasil evaluasi prefix: " + prefixResult);
309         } else {
310             System.out.println("Pilihan tidak valid!");
311         }
312         System.out.print("Masukkan pilihan anda : ");
313         pilihan = input.nextInt();
314         input.nextLine();
315     }
316     System.out.println("Terima kasih telah menggunakan program ini!");
317     input.close();
318 }
319
320 }
321

Fatur@192 Tugas 5 % /usr/bin/env /Library/Java/JavaVirtual
s/Home/bin/java --enable-preview -XX:+ShowCodeDetailsInEx
Library/Application\ Support/Code/User/workspaceStorage/2
edhat.java/jdt_ws/Tugas\ 5_c61cc32d/bin TugasStack
Selamat datang di program infix, postfix, dan prefix.
1. Infix to Postfix
2. Infix to Prefix
3. Keluar program
Masukkan pilihan anda : 1
Masukkan infix notation : 1+2*3
Postfix notation: 123*+
Hasil evaluasi postfix: 7
Masukkan pilihan anda :
```

## Infix to Postfix Notation (Java)



```
public class TugasStack {  
    public static void main(String[] args) {  
        int pilihan;  
        String exp;  
        Scanner input = new Scanner(System.in);  
  
        System.out.println(x:"Selamat datang di program infix, postfix, dan prefix.");  
        System.out.println(x:"oleh Faturrohman Fairuz Zaki");  
        System.out.println(x:"1. Infix to Postfix");  
        System.out.println(x:"2. Infix to Prefix");  
        System.out.println(x:"3. Keluar program");  
        System.out.print(s:"Masukkan pilihan anda : ");  
        pilihan = input.nextInt();  
  
        input.nextLine();  
  
        while (pilihan != 3) {  
            if (pilihan == 1) {  
                System.out.print(s:"Masukkan infix notation : ");  
                exp = input.nextLine();  
                String postfixExp = infixToPostfix(exp);  
                System.out.println("Postfix notation: " + postfixExp);  
                int postfixResult = evaluatePostfix(postfixExp);  
                System.out.println("Hasil evaluasi postfix: " + postfixResult);  
            } else if (pilihan == 2) {  
                System.out.print(s:"Masukkan infix notation : ");  
                exp = input.nextLine();  
                String prefixExp = infixToPrefix(exp.toCharArray());  
                System.out.println("Prefix notation: " + prefixExp);  
                int prefixResult = evaluatePrefix(prefixExp);  
                System.out.println("Hasil evaluasi prefix: " + prefixResult);  
            } else {  
                System.out.println(x:"Pilihan tidak valid!");  
            }  
            System.out.print(s:"Masukkan pilihan anda : ");  
            pilihan = input.nextInt();  
            input.nextLine();  
        }  
        System.out.println(x:"Terima kasih telah menggunakan program ini!");  
        input.close();  
    }  
}
```

Fatur@192 Tugas 5 % /usr/bin/env /Library/Java/JavaVir  
s/Home/bin/java --enable-preview -XX:+ShowCodeDetailsIn  
Library/Application\ Support/Code/User/workspaceStorage.  
edhat.java/jdt\_ws/Tugas\ 5\_c61cc32d/bin TugasStack  
Selamat datang di program infix, postfix, dan prefix.  
oleh Faturrohman Fairuz Zaki  
1. Infix to Postfix  
2. Infix to Prefix  
3. Keluar program  
Masukkan pilihan anda : 2  
Masukkan infix notation : 1+2\*3  
Prefix notation: +1\*23  
Hasil evaluasi prefix: 7  
Masukkan pilihan anda : █

Ln 23, Col 6 Spaces: 4 U

## Infix to Prefix Notation (Java)