Sample Course Name

Week-2 (Sample Course Module Name)

Spring Semester, 20XX-20XX

Download DOC, SLIDE, PPTX

Outline

- Flowgorithm

What is Flowgorithm ?

Sample Topic

- **What is Flowgorithm ?**

  Flowgorithm is a graphical authoring tool which allows users to write and execute programs using flowcharts. The approach is designed to emphasize the algorithm rather than the syntax of a specific programming language.The flowchart can be converted to several major programming languages. Flowgorithm was created at Sacramento State University.

- **What is Flowgorithm?**
  Flowgorithm is a **free** beginner's programming language that is based on simple graphical flowcharts.

  Typically, when a student first learns to program, they often use one of the text-based programming languages. Depending on the language, this can either be easy or frustratingly difficult. Many languages require you to write lines of confusing code just to display the text "Hello, world!".

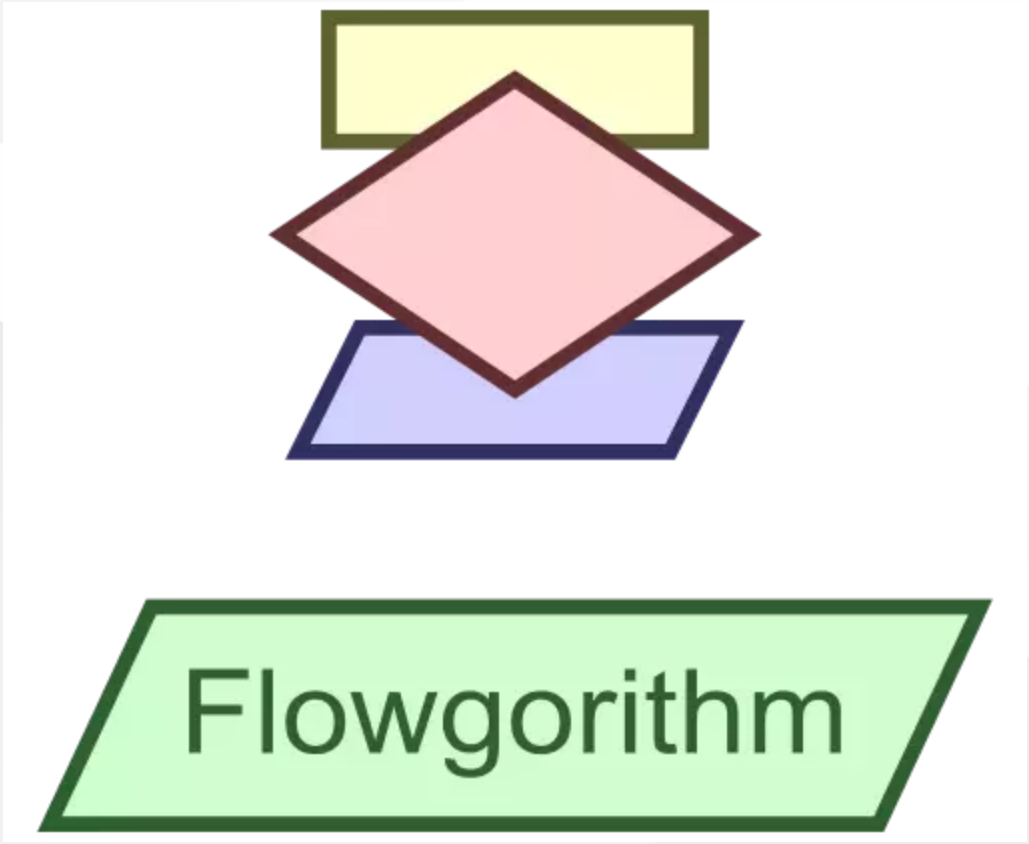
  By using flowcharts, you can concentrate on programming concepts rather than all the nuances of a typical programming language. You can also run your programs directly in Flowgorithm.

  Once you understand programming logic, it is easy for you to learn one of the major languages. Flowgorithm can interactively convert your flowchart to over 18 languages. These include: C#, C++, Java, JavaScript, Lua, Perl, Python, Ruby, Swift, Visual Basic .NET, and VBA (used in Office).

Sample Images-2

- **What is Flowgorithm?**
  Flowgorithm is a graphical authoring tool which allows users to write and execute programs using flowcharts. The approach is designed to emphasize the algorithm rather than the syntax of a specific programming language.The flowchart can be converted to several major programming languages. Flowgorithm was created at Sacramento State University.

Sample Images-3

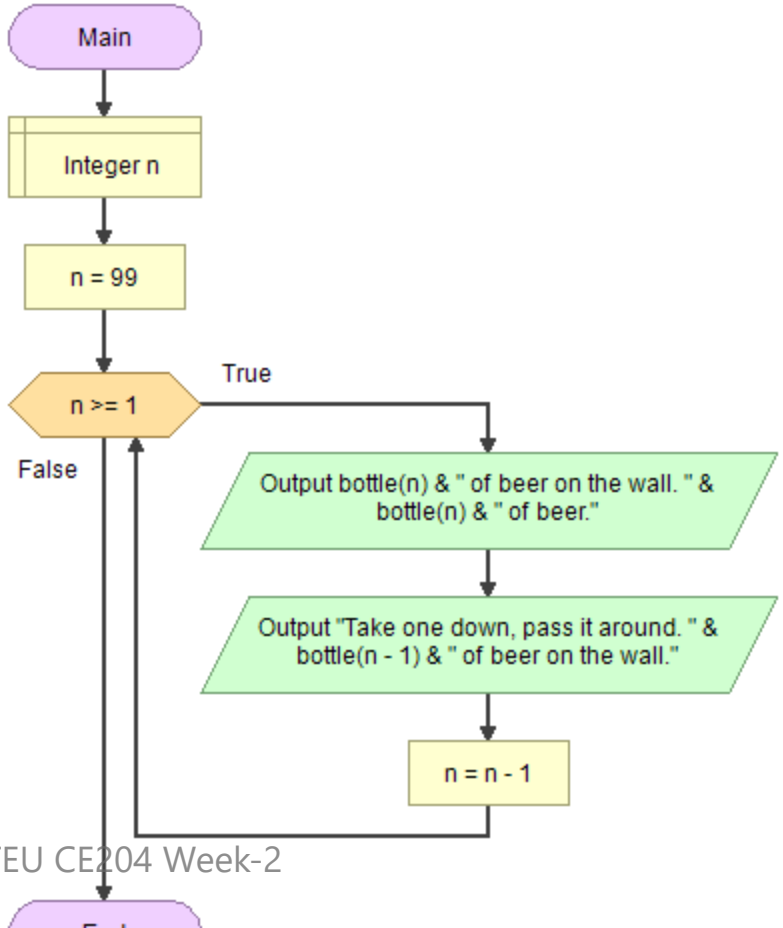
- 

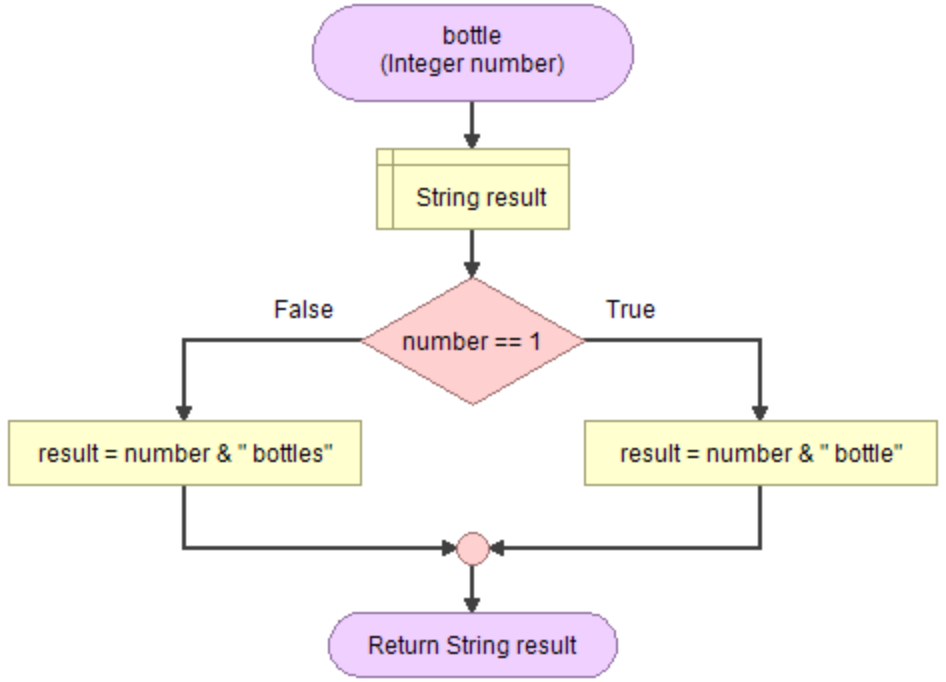
Sample Images-4

- **How is download Flowgorithm ?**
  http://www.flowgorithm.org/

- **What does Flowgorithm do?**

  Flowgorithm is a graphical authoring tool which **allows users to write and execute programs using flowcharts**. The approach is designed to emphasize the algorithm rather than the syntax of a specific programming language. The flowchart can be converted to several major programming languages.





$$
\begin{aligned}
&\text{for } i = 1 \text{ to } n-1 \text{ do} \\
&\quad m[i, i+1] = \infty \\
&\quad\quad \text{for } k = i \text{ to } i \text{ do} \\
&\quad\quad\quad \vdots
\end{aligned}
\qquad
\left\{
\begin{array}{r}
\text{compute } m[i, i+1] \\
\underbrace{\{m[1,2], m[2,3], \ldots, m[n-1,n]\}}_{(n-1) \text{ values}}
\end{array}
\right. \qquad (1)
$$

$$
\begin{aligned}
&\ell = 3 \\
&\text{for } i = 1 \text{ to } n-2 \text{ do} \\
&\quad m[i, i+2] = \infty \\
&\quad\quad \text{for } k = i \text{ to } i+1 \text{ do} \\
&\quad\quad\quad \vdots
\end{aligned}
\qquad
\left\{
\begin{array}{r}
\text{compute } m[i, i+2] \\
\underbrace{\{m[1,3], m[2,4], \ldots, m[n-2,n]\}}_{(n-2) \text{ values}}
\end{array}
\right. \qquad (1)
$$

$$
\begin{aligned}
&\ell = 4 \\
&\text{for } i = 1 \text{ to } n-3 \text{ do} \\
&\quad m[i, i+3] = \infty \\
&\quad\quad \text{for } k = i \text{ to } i+2 \text{ do}
\end{aligned}
\qquad
\left\{
\begin{array}{r}
\text{compute } m[i, i+3] \\
\underbrace{\{m[1,4], m[2,5], \ldots, m[n-3,n]\}}_{(n-3) \text{ values}}
\end{array}
\right. \qquad (1)
$$

$c[i, i-1] \leftarrow 0$

$c[i, i] \leftarrow p[i]$

$R[i, j] \leftarrow i$

$PS[1] \leftarrow p[1] \Longleftarrow PS[i] \rightarrow$ prefix-sum (i) : Sum of all $p[j]$ values for $j \leq i$

for $i \leftarrow 2$ to n do

$PS[i] \leftarrow p[i] + PS[i-1] \Longleftarrow$ compute the prefix sum

for $d \leftarrow 1$ to $n-1$ do $\Longleftarrow$ BSTs with $d+1$ consecutive keys

for $i \leftarrow 1$ to n–d do

$j \leftarrow i + d$

$c[i, j] \leftarrow \infty$

for $r \leftarrow i$ to j do

$q \leftarrow min\{c[i, r-1] + c[r+1, j]\} + PS[j]–PS[i-1]\}$

if $q < c[i, j]$ then

$c[i, j] \leftarrow q$

TODO UPDATE CONTENT FOR YOUR COURSE NOTES

References

- http://www.flowgorithm.org/
- Flowgorithm - Wikipedia
- Flowgorithm - Wikiwand
- https://upload.wikimedia.org/wikipedia/commons/4/42/Flowgorithm_99_Bottles_of_Beer.png
- https://www.testingdocs.com/wp-content/uploads/flowgorithm-logo.png

$$End - Of - Week - 2 - Module$$