Practice Assignment: Lecture Example 1
Simple Search 2
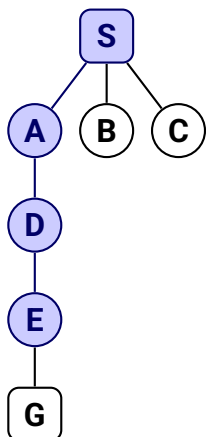Prepared by S. Baskaran

State Space
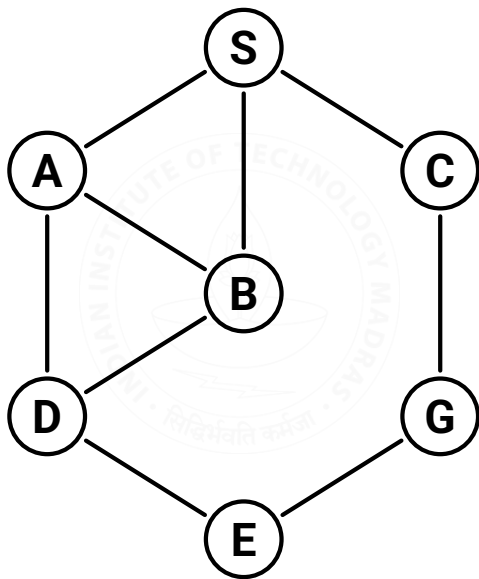
X	MoveGen(X)
S	[A,B,C]
A	[S,B,D]
B	[S,A,D]
C	[S,G]
D	[A,B,E]
E	[D,G]
G	[C,E]

Simple-Search-2 – Search Tree

Simple-Search-2 – Solution

OPEN, CLOSED and moveGen are sets. In each iteration, Simple-Search-2 removes one node from OPEN and inspects/expands that node.

In this example, we chose to remove the latest/newest node from OPEN.

```
OPEN        {S}
CLOSED      {}
```

```
1.
NODE        S
close       S
moveGen     {A,B,C}

OPEN        {A,B,C}
CLOSED      {S}
```

```
2.
NODE        A
close       A
moveGen     {S,B,D}

OPEN        {D,B,C}
CLOSED      {A,S}
```

```
3.
NODE        D
close       D
moveGen     {A,B,E}

OPEN        {E,B,C}
CLOSED      {D,A,S}
```

```
4.
NODE        E
close       E
moveGen     {D,G}

OPEN        {G,B,C}
CLOSED      {E,D,A,S}
```

```
5.
NODE        G
GOAL        G

OPEN        {G,B,C}
CLOSED      {E,D,A,S}
```