LKP 6

* Agen berada pada [1,1], agen tidak merasakan apapun baik breeze, stench ataupun goldmaka [1,2] dan [2,1] pasti aman tidak ada pit ataupun Wumpus, dan bisa jadi ada gold.
* Agen ke depan ke [1,2], agen merasakan adanya stench sehingga bisa dipastikan pasti ada Wumpus diantara [1.3] atau [2,2], dan tidah merasa adanya breeze ataupun gold sehingga bisa dipastikan [1,3] [2,2] pasti PIT tidak ada.
* Agen pun bergerak ke [2,1] disana dia merasakan breeze sehingga bisa bisa dipastikan ada PIT diantara [3,1] dan [2,2], nah berdasarkan informasi yang telah didapatkan dari sebelumnya, jika di [1,2] dia merasa ada stench pasti ada di Wumpus antara [1.3] atau [2,2], dan disini dapat dilihat bahwa ada PIT diantara [3,1] dan [2,2], maka dapat disimpulkan di [2,2] aman. Sementara di [1,3] ada Wumpus, sementara di [3,1], ada PIT
* Selanjutnya agen pun bergerak ke [2,2], di situ agen tidak merasakan apa apa, sehingga maka [2,3] dan [3,2] bebas dari PIT ataupun Wumpus
* Lalu agen ke [2,3] di situ dia merasakan breeze, stench, dan gold. Kita sudah mengetahui dari awal ada Wumpus di [3,1], karena sudah ada gold di [2,3], maka agen akan mengambil gold tersebut, dan mendapatkan 1000 point, dan game pun berakhir

from utils import \*  
from logic import \*  
kb\_wumpus = PropKB() # Inisialisasi Knowledge Base  
P = {}; B = {}; G = {}; # Init pit, breeze, gliter, wumpus, dan stench  
W = {}; S = {}  
P[1, 1] = Symbol("P[1,1]");P[1, 2] = Symbol("P[1,2]"); P[1, 3] = Symbol("P[1,3]");  
P[1, 4] = Symbol("P[1,4]");P[2, 1] = Symbol("P[2,1]");P[2, 2] = Symbol("P[2,2]");  
P[2, 3] = Symbol("P[2,3]");P[2, 4] = Symbol("P[2,4]");P[3, 1] = Symbol("P[3,1]");  
P[3, 2] = Symbol("P[3,2]");  
B[1, 1] = Symbol("B[1,1]");B[1, 2] = Symbol("B[1,2]");B[1, 3] = Symbol("B[1,3]");  
B[1, 4] = Symbol("B[1,4]");B[2, 1] = Symbol("B[2,1]");B[2, 2] = Symbol("B[2,2]");  
B[2, 3] = Symbol("B[2,3]");B[2, 4] = Symbol("B[2,4]");B[3, 1] = Symbol("B[3,1]");  
B[3, 2] = Symbol("B[3,2]")  
G[1, 1] = Symbol("G[1,1]");G[1, 2] = Symbol("G[1,2]");G[2, 1] = Symbol("G[2,1]");  
G[2, 2] = Symbol("G[2,2]");G[2, 3] = Symbol("G[2,3]");G[3, 2] = Symbol("G[3,2]")  
W[1, 3] = Symbol("W[1,3]");W[1, 1] = Symbol("W[1,1]");W[1, 2] = Symbol("W[1,2]");  
W[2, 2] = Symbol("W[2,2]");W[3, 3] = Symbol("W[3,3]");W[3, 1] = Symbol("W[3,1]");  
W[2, 4] = Symbol("W[2,4]");W[2, 1] = Symbol("W[2,1]");W[3, 2] = Symbol("W[3,2]");  
W[2, 3] = Symbol("W[2,3]")  
S[2, 1] = Symbol("S[2,1]");S[1, 2] = Symbol("S[1,2]");S[3, 1] = Symbol("S[3,1]");  
S[2, 2] = Symbol("S[2,2]");S[3, 2] = Symbol("S[3,2]");S[2, 3] = Symbol("S[2,3]");  
S[1, 4] = Symbol("S[1,4]");S[1, 1] = Symbol("S[1,1]")  
# Menambahkan kalimat fakta kedalam knowledge base  
kb\_wumpus.tell(G[2, 3])  
kb\_wumpus.tell(~P[1, 1])  
kb\_wumpus.tell(~W[1, 1])  
kb\_wumpus.tell(S[1, 1] | '<=>' | ((W[1, 2] | W[2, 1])))  
kb\_wumpus.tell(S[1, 2] | '<=>' | ((W[1, 1] | W[1, 3] | W[2, 2])))  
kb\_wumpus.tell(B[1, 1] | '<=>' | ((P[1, 2] | P[2, 1])))  
kb\_wumpus.tell(B[2, 1] | '<=>' | ((P[1, 1] | P[2, 2] | P[3, 1])))  
kb\_wumpus.tell(~B[1, 1])  
kb\_wumpus.tell(~S[1, 1])  
kb\_wumpus.tell(B[2, 1])  
kb\_wumpus.tell(S[1, 2])  
# Menanyakan kedalam KB yang sudah didefinisikan diatas  
#Ada pit/wumpus di [1,1] --> Salah  
print(kb\_wumpus.ask\_if\_true(P[1, 1] | W[1, 1]))  
#Ada gold di [1,1] --> Salah  
print(kb\_wumpus.ask\_if\_true(G[1, 1]))  
#Ada pit/wumpus di P[1,2] --> Salah  
print(kb\_wumpus.ask\_if\_true(P[1, 2] | W[1, 2]))  
#Ada gold di [1,2] --> Salah  
print(kb\_wumpus.ask\_if\_true(G[1, 2]))  
#Tidak ada pit di P[1,2] dan P[2,1] --> Benar  
print(kb\_wumpus.ask\_if\_true(~P[1, 2] & ~P[2, 1]))  
#Ada pit di P[2,2] atau P[3, 1] --> Benar  
print(kb\_wumpus.ask\_if\_true(P[2, 2] | P[3, 1]))  
#Ada pit/wumpus di P[2,1] --> Salah  
print(kb\_wumpus.ask\_if\_true(P[2, 1] | W[2, 1]))  
#Ada gold di [2,1] --> Salah  
print(kb\_wumpus.ask\_if\_true(G[2, 1]))  
#Ada pit/wumpus di [1,3] atau [2,2] --> Benar  
print(kb\_wumpus.ask\_if\_true(P[1, 3] | W[1, 3] | P[2, 2] | W[2, 2]))  
#Ada pit di [2,2] atau [1,3] --> Salah  
print(kb\_wumpus.ask\_if\_true(P[1, 3] | P[2, 2]))  
#Ada wumpus di [2,2] atau [1,3] --> Benar  
print(kb\_wumpus.ask\_if\_true(W[1, 3] | W[2, 2]))  
#Ada gold di [2,2] --> Salah  
print(kb\_wumpus.ask\_if\_true(G[2, 2]))  
#Ada pit/wumpus di [3,2] --> Salah  
print(kb\_wumpus.ask\_if\_true(P[3, 2] | W[3, 2]))  
#Ada gold di [3,2] --> Salah  
print(kb\_wumpus.ask\_if\_true(G[3, 2]))  
#Ada pit/wumpus di [2,3] atau [2,3] --> Salah  
print(kb\_wumpus.ask\_if\_true(P[2, 3] | W[2, 3]))  
#Ada gold di [2,3] --> Salah  
print(kb\_wumpus.ask\_if\_true(G[2, 3]))  
print("Gold ditemukan pada G[2, 3]")