(define (domain wumpus-domain)

(:requirements :strips)

(:predicates

(at ?what ?square)

(adj ?square-1 ?square-2)

(pit ?square)

(wumpus-in ?square)

;; <-> (exists ?x (and (is-wumpus ?x) (at ?x ?square) (not (dead ?x))

(have ?who ?what)

(is-agent ?who)

(is-wumpus ?who)

(is-gold ?what)

(is-arrow ?what)

(dead ?who))

(:action move-agent

:parameters (?who ?from ?to)

:precondition (and (is-agent ?who)

(at ?who ?from)

(adj ?from ?to)

(not (pit ?to))

(not (wumpus-in ?to)))

:effect (and (not (at ?who ?from))

(at ?who ?to))

)

(:action take

:parameters (?who ?what ?where)

:precondition (and (is-agent ?who)

(at ?who ?where)

(at ?what ?where))

:effect (and (have ?who ?what)

(not (at ?what ?where)))

)

(:action shoot

:parameters (?who ?where ?with-what ?victim ?where-victim)

:precondition (and (is-agent ?who)

(have ?who ?with-what)

(is-arrow ?with-what)

(at ?who ?where)

(is-wumpus ?victim)

(at ?victim ?where-victim)

(adj ?where ?where-victim))

:effect (and (dead ?victim)

(not (wumpus-in ?where-victim))

(not (have ?who ?with-what)))

)

(:action move-wumpus

:parameters (?who ?from ?to)

:precondition (and (is-wumpus ?who)

(at ?who ?from)

(adj ?from ?to)

(not (pit ?to))

(not (wumpus-in ?to)))

:effect (and (not (at ?who ?from))

(at ?who ?to)

(not (wumpus-in ?from))

(wumpus-in ?to))

)

)