Previous attempts at implementing bots for the classic roguelike game NetHack have been hindered by many problems related to its complexity and console-based interface. The framework implemented as part of this work solves the problem of interfacing with the game and provides a programmer-friendly API for the Java and Clojure programming languages. It enables programming sophisticated bots using the provided model of the game world, a library of possible actions and utilities for various aspects of the game. The framework uses elements of functional and logic programming and doesn't require modifications of the game. Also described is an implementation of the first NetHack bot capable of winning the game.