2a. The programming language used to create my game is the language of scratch. It is a basic language that can also be complicated depending on what you are trying to do with the code. The purpose of my program is to make a person get sucked into a black hole while hes bouncing on a trampoline while on a basketball court. He then has to go through a very complicated maze while collecting a good disease and running away from a shark. Once the exits are unlocked, the player has to choose which exit is the right one. The video shows my code working.all together.

2b. My program is actually a remix of a game that I made earlier in the year. I changed all the characters and most of the sprites. The only thing I kept the same was the maze. I made most of this game by myself, created the codes by myself, but I had some help with the codes to make the AI from a friend. I also got the sprites from the pre created ones in scratch itself.

3b.

```
if key down arrow pressed? then

change y by -8

if key up arrow pressed? then

change y by 8

if key left arrow pressed? then

change x by -10

switch costume to amon2

if key right arrow pressed? then

change x by 10

switch costume to amon

if touching color ? then

go to x: last x y: last y
```

This section of my code is probably the most important section of my code. It makes it so whenever one of the arrow keys are pressed, it moves the character by a certain amount.

2d.

```
if touching color ? then
go to x: last x y: last y
```

```
when backdrop switches to Maze 1 v

forever

set last x v to x position

set last y v to y position

show variable Good Disease
```

This is my codes abstraction. The part that says touching color [] then go to x: "last x" y: "last y" makes it so you can't go through the walls when you are inside the maze. The other section of the code sets the two variables up. When the player gets to the maze, it forever sets them to the characters current position. So if they touch a wall, they are seamlessly sent back to their most recent position. This makes the illusion as if the player hadn't moved at all.

All of my code shown below

```
when backdrop switches to Maze 1*
set Good Disease * to 0
show
when / clicked
                                                                                                                                         when backdrop switches to Maze 1
                                                                                when I receive dead *
set Good Disease to 0
 set Good Disease to 0
                                                                                                                                           set last x to x position
set End to False
                                                                                 set End to False
                                      ga ta front
                                                                                switch backdrop to Maze 1
                                                                                                                                           set last v to y position
                                      switch costume to amon set x to -184
                                                                                show
                                                                                                                                           show variable Good Disease
switch costume to amon3
                                                                                go to front
switch backdrop to basketball-court1-z
                                      set y to 116
                                                                                switch costume to amon *
                                                                                set x to -184
set x to @
                                        rait 🛭 secs
                                                                                                                                  hen backdrop switches to basketball-court1-z
set y to -60
                                                                                set y to III
                                           key down arrow pressed? then
                                                                                  ait 🛭 sec
                                                                                                                                        v position of Amor  < -60 then
     key down arrow pressed? then
                                         change y by -8
   change y by -10
                                                                                  touching color 2 then
go to x: last x y: last y
                                                                                                                                    set y to -60
                                        if key up arrow pressed? then
                                                                                                                                   if touching black hole ? then
  If key up arrow pressed? then
                                         change y by 3
                                                                                                                                    stop this script ▼
                                                                                      touching Arrow1 7 the
   change y by 10
                                        if key left arrov pressed? the
                                                                                    broadcast Whoosh * and wait
   touching black hole 7 the
                                         change x by -10
                                                                                    switch backdrop to Tvier1
   switch backdrop to Maze 1
                                         switch costume to amon2
                                                                                    set x to 0
                                                                                    set y to 0
                                        if key right arrow pressed? the
   touching black hole 7 the
    broadcast Whoosh
                                         change x by 10
                                                                                      touching Arrow2 7 the
                                         switch costume to amon
    stop this script
                                                                                    switch backdrop to The End
                                           touching color 2 then
  if key right arrow pressed? ther
                                                                                    set x to 0
                                         go to x: last x y: last y
   switch costume to amon3
                                                                                    set y to 0
                                           touching Arrow1 7 then
  if key left arrow pressed? then
                                                                                     touching Sharl 7 2 ther
   switch costume to amon4 *
                                         broadcast Whoosh and wait
                                                                                    broadcast dead *
                                          switch backdrop to Tyles1
                                          set x to 0
                                          set y to 0
                                           touching Arrow2 7 2 the
                                          broadcast Whoosh and wait
                                          switch backdrop to The End
                                          set x to 0
                                          set y to 🕖
                                           touching Shart ? then
                                          broadcast dead
                                          stop this script
```

```
when backdrop switches to Maze 1 ×
when Clicked
hide
                                  switch costume to shark-a
when backdrop switches to The End
                                  ga to x: -194 y: -125
                                  wait 1 secs
hide __
when backdrop switches to Tyler1 🔻
hide
                                    if distance to Amon < 100 then
                                      point towards Amon
                                      move -0.3 steps
                                      switch costume to shark-a
                                    point towards Amon
                                    move 0.8 steps
                                     if distance to Amon v < 50 then
                                      switch costume to shark-b
                                      broadcast hit *
                                     if touching Amon ? then
                                      stop this script 🔻
                                       _____
```

```
when backdrop switches to Tyler1 *
set End v to False
                          when backdrop switches to The End *
hide
                          switch costume to please dont work
when backdrop switches to Maze 1 🔻
set End to False
                            when F clicked
hide
                            switch costume to please dont work
repeat until End = True
                           hide
  if Good Disease = 5 then
     switch costume to please work
     show
     ga to front
                         when backdrop switches to basketball-court1-a *
     wait 0.1 secs
                         hide
     set End to True
                        (ك
```

```
when backdrop switches to The End w
when backdrop switches to Maze 1 ▼
hide
                                                   when backdrop switches to basketball-court1-a v
                                                    hide
when backdrop switches to Tyler1 -
hide
                                              when backdrop switches to Maze 1 =
                                             show
when backdrop switches to basketball-court1-a v
                                                    when backdrop switches to Tyler1 *
show
                                                    hide
 when Clicked
                             when backdrop switches to Tyler1 -
 switch costume to Hide 1
                             set End ▼ to False
 hide
                             hide
when backdrop switches to Maze 1 ▼
set End to False
                              when backdrop switches to basketball-court1-a •
hide
                              hide
 repeat until End = True
   if Good Disease = 5 then
     switch costume to Shown 1
     show
     go to front
                          when backdrop switches to The End
     wait 0.1 secs
                          switch costume to Hide 1
     set End to True
                          (ار
                                        when backdrop switches to Tyler1 🔻
when backdrop switches to Tyler1 >
                                        hide
hide
        when /= clicked
                                        when backdrop switches to basketball-court1-a 🔻
        show
                                        hide
        set x to -1
        set y to 45
                                        when backdrop switches to Maze 1 *
                                         show
  when backdrop switches to Maze 1 =
                                         when backdrop switches to The End
 hide
                                         hide
```

```
when this sprite clicked

when backdrop switches to Maze 1 v

switch backdrop to Maze 1 v

hide

set Good Disease v to 0

set End v to false

when backdrop switches to Tyler1 v

show

when backdrop switches to beach malibu v

hide

when backdrop switches to The End v

hide
```

```
when backdrop switches to The End v
hide

when backdrop switches to Maze 1 v
show
forever

if touching Amon v 2 then
change Good Disease v by 1
play sound pop v
hide

when backdrop switches to basketball-court1-a v
hide

when backdrop switches to Tyler1 v
hide
```

```
when backdrop switches to The End 
hide

when backdrop switches to Maze 1 
show

forever

if touching Amon 2 then

change Good Disease by 1

play sound pop hide

when backdrop switches to basketball-court1-a 
hide
```

```
when backdrop switches to The End *
                                               when backdrop switches to The End *
                                               hide
hide
        when backdrop switches to Maze 1 *
                                                      when backdrop switches to Maze 1 *
        show
                                                       show
        forever
                                                       forever
              touching Amon ? then
                                                             touching Amon ? ? then
            change Good Disease by 1
                                                           change Good Disease v by 1
            play sound pop
                                                           play sound pop
            hide
                                                           hide
                 [ال
                                                                -
when backdrop switches to basketball-court1-a .
                                              when backdrop switches to basketball-court1-a .
hide
                                              hide
         when backdrop switches to Tyler1 *
                                                       when backdrop switches to Tyler1 -
         hide
                                                       hide
when backdrop switches to The End *
                                               when backdrop switches to The End
hide
                                               hide
        when backdrop switches to Maze 1 v
                                                       when backdrop switches to Maze 1 🔻
        show
                                                       show
             touching Amon ? then
                                                             touching Amon ? ? then
            change Good Disease by 1
                                                           change Good Disease • by 1
            play sound pop
                                                           play sound pop
            hide
                                                           hide
                 [ال
                                                                3
                                              when backdrop switches to basketball-court1-a v
when backdrop switches to basketball-court1-a v
hide
                                              hide
         when backdrop switches to Tyler1 *
                                                       when backdrop switches to Tyler1 *
         hide
                                                       hide
```

(6 of these because 6 sprites all with the same code inside.

```
when / clicked
hide
when backdrop switches to The End .
hide
when backdrop switches to Tyler1 -
hide
       when backdrop switches to Maze 1 *
       show
       switch costume to shark-a
       ga to x: -194 y: -125
       wait 1 secs
               distance to Amon V < 100 then
           point towards Amon
           move -0.3 steps
           switch costume to shark-a
         point towards Amon *
         move 0.8 steps
         if distance to Amon < 50 then
           switch costume to shark-b
           broadcast hit
         if touching Amon ? then
           stop this script ▼
                4
```