**Minecraft Village - tutor notes**

Run Minecraft (Raspberry menu - Games - Minecraft Pi) and start a game

Mouse to look around, WSAD to walk

Use the TAB key to switch between Minecraft and normal mouse control.

From the Raspberry menu, select Programming, Python 3 (IDLE).

From the IDLE menu, select File, Open. Find the python folder and double-click it to open it. Find the minecraft-village folder and double-click it to open it.

Select the village.py program and click Open.

Run this program using Run menu, Run Module.

Explore the road and the house.

Stop the program by closing the Shell window.

Add a new house by typing into the end of the program:

makeHouse(mc, x+7, y, z+15)

x=left to right across the street

y=up and down

z=forwards and back along the street

Can you:

\* Create a street with 6 houses, 3 along each side?

makeHouse(mc, x-7, y, z+4)

\* Build houses in the air?

\* Create a new subroutine makeShop that makes a building with bigger windows?

#!/usr/bin/env python3

from mcpi.minecraft import Minecraft

from mcpi import block

###########################################################

#

# Initialise the Village. A clearing is made in front of the player.

# A road is placed along the z axis with grass either side of it.

# The Minecraft connection is returned.

#

###########################################################

def init():

 mc = Minecraft.create()

 x, y, z = mc.player.getTilePos()

 if z > 70:

 # We need room along the z axis for the steet

 z = 70

 mc.setBlocks(x-15, -1, z-2, x+15, 50, z+58, block.AIR.id)

 mc.setBlocks(x-15, -1, z-2, x+15, -1, z+58, block.GRASS.id)

 mc.setBlocks(x-2, -1, z-2, x+2, -1, z+58, block.STONE.id)

 mc.player.setPos(x, 0, z)

 return mc

###########################################################

#

# Construct a House centered on coordinates x, y, z.

# The house is 6 blocks deep and 7 blocks wide.

#

###########################################################

def makeHouse(mc, x, y, z):

 # Build the shell

 mc.setBlocks(x-2, y, z-3, x+3, y+2, z+3, block.BRICK\_BLOCK.id)

 mc.setBlocks(x-1, y, z-2, x+2, y+2, z+2, block.AIR.id)

 # Add the roof

 mc.setBlocks(x-2, y+3, z-3, x-2, y+3, z+3, block.STAIRS\_WOOD.id, 0)

 mc.setBlocks(x+3, y+3, z-3, x+3, y+3, z+3, block.STAIRS\_WOOD.id, 1)

 mc.setBlocks(x-1, y+4, z-3, x-1, y+4, z+3, block.STAIRS\_WOOD.id, 0)

 mc.setBlocks(x+2, y+4, z-3, x+2, y+4, z+3, block.STAIRS\_WOOD.id, 1)

 mc.setBlocks(x, y+5, z-3, x, y+5, z+3, block.STAIRS\_WOOD.id, 0)

 mc.setBlocks(x+1, y+5, z-3, x+1, y+5, z+3, block.STAIRS\_WOOD.id, 1)

 # Fill in each end of the roof

 mc.setBlocks(x-1, y+3, z-3, x+2, y+3, z-3, block.BRICK\_BLOCK.id)

 mc.setBlocks(x, y+4, z-3, x+1, y+4, z-3, block.BRICK\_BLOCK.id)

 mc.setBlocks(x-1, y+3, z+3, x+2, y+3, z+3, block.BRICK\_BLOCK.id)

 mc.setBlocks(x, y+4, z+3, x+1, y+4, z+3, block.BRICK\_BLOCK.id)

 # Add doors front and rear and pathways

 mc.setBlock(x-2, y, z-1, block.DOOR\_WOOD.id, 0)

 mc.setBlock(x-2, y+1, z-1, block.DOOR\_WOOD.id, 8)

 mc.setBlock(x+3, y, z+1, block.DOOR\_WOOD.id, 2)

 mc.setBlock(x+3, y+1, z+1, block.DOOR\_WOOD.id, 10)

 mc.setBlocks(x-3, y-1, z-1, x-4, y-1, z-1, block.STONE.id)

 mc.setBlocks(x+4, y-1, z+1, x+5, y-1, z+1, block.STONE.id)

 # Add Windows

 mc.setBlocks(x-2, y+1, z, x-2, y+1, z+1, block.GLASS.id)

 mc.setBlocks(x+3, y+1, z, x+3, y+1, z-1, block.GLASS.id)

 mc.setBlocks(x, y+1, z-3, x+1, y+1, z-3, block.GLASS.id)

 mc.setBlocks(x, y+1, z+3, x+1, y+1, z+3, block.GLASS.id)

mc = init()

x, y, z = mc.player.getTilePos()

makeHouse(mc, x+7, y, z+4)

makeHouse(mc, x+7, y, z+15)