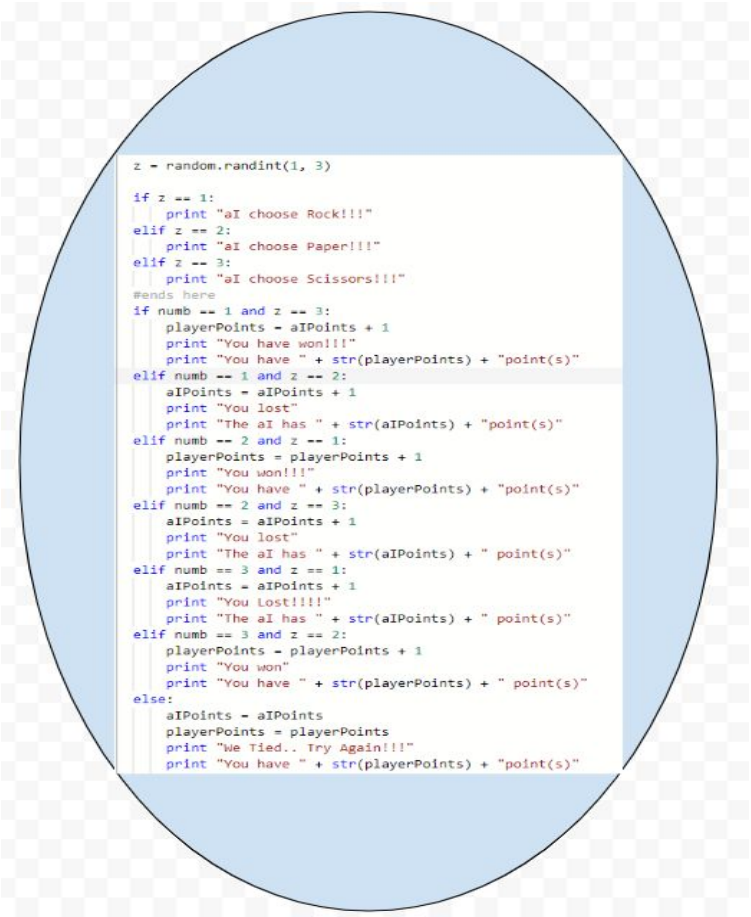
2a.Program I used Python, the purpose of my code is to run rock paper scissors and tell if your number is a positive or negative. My video will show my program run a basic rock paper scissors game and see if your number is negative or positive starts on line 9 ends on line 80.

2b. I faced a lot of breakthrough and a lot of setbacks here is some of them, one of my setbacks was the non ascii characters. It took me a while to find what word or program was causing it but once I got it all fixed up it all went pretty smoothly besides for the indentions.

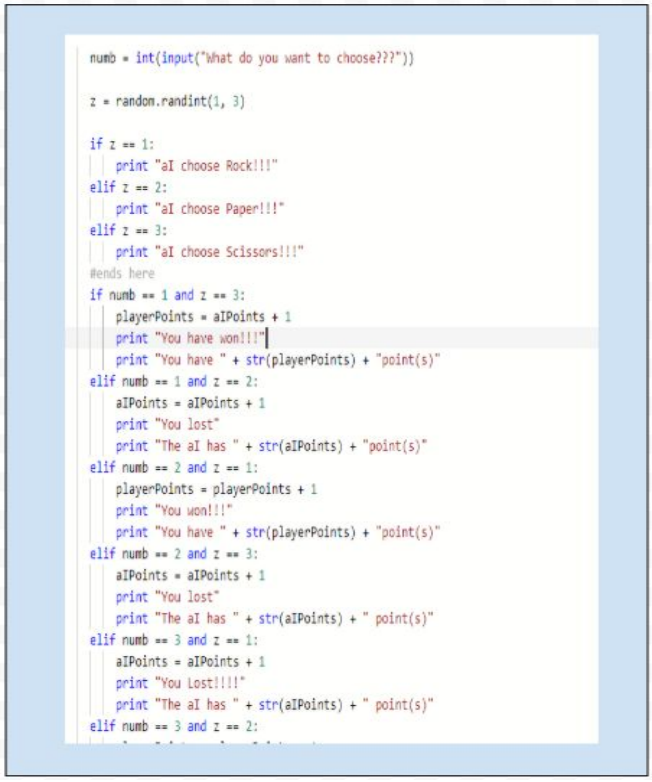


```
z = random.randint(1, 3)

if z == 1:
    print "aI choose Rock!!!"
elif z == 2:
    print "aI choose Paper!!!"
elif z == 3:
    print "aI choose Scissors!!!"
#ends here
if numb == 1 and z == 3:
    playerPoints = aIPoints + 1
    print "You have won!!!"
    print "You have " + str(playerPoints) + "point(s)"
elif numb == 1 and z == 2:
    aIPoints = aIPoints + 1
    print "You lost"
    print "The aI has " + str(aIPoints) + "point(s)"
elif numb == 2 and z == 1:
    playerPoints = playerPoints + 1
    print "You won!!!"
    print "You have " + str(playerPoints) + "point(s)"
elif numb == 2 and z == 3:
    aIPoints = aIPoints + 1
    print "You lost"
    print "The aI has " + str(aIPoints) + " point(s)"
elif numb == 3 and z == 1:
    aIPoints = aIPoints + 1
    print "You Lost!!!!"
    print "The aI has " + str(aIPoints) + " point(s)"
elif numb == 3 and z == 2:
    playerPoints = playerPoints + 1
    print "You won"
    print "You have " + str(playerPoints) + " point(s)"
else:
    aIPoints = aIPoints
    playerPoints = playerPoints
    print "We Tied.. Try Again!!!"
    print "You have " + str(playerPoints) + "point(s)"
```

2c

z = is the aI variable so when it chooses 1 2 3 if it chooses one then it goes down to the part where it says z == 1 then depending on what you pick it will say you win or aI wins or it is a tie. So where is says z == (1,2,3) it then brings you to the algorithm. One algorithm says if numb (number) == 2 and z == 1 then you would win. Then it says elif (else, if) numb == 1 and z == 2 then you would have lost.

2d. 

```
numb = int(input("what do you want to choose???"))

z = random.randint(1, 3)

if z == 1:
    print "aI choose Rock!!!"
elif z == 2:
    print "aI choose Paper!!!"
elif z == 3:
    print "aI choose Scissors!!!"
#ends here
if numb == 1 and z == 3:
    playerPoints = aIPoints + 1
    print "You have won!!!"
    print "You have " + str(playerPoints) + "point(s)"
elif numb == 1 and z == 2:
    aIPoints = aIPoints + 1
    print "You lost"
    print "The aI has " + str(aIPoints) + "point(s)"
elif numb == 2 and z == 1:
    playerPoints = playerPoints + 1
    print "You won!!!"
    print "You have " + str(playerPoints) + "point(s)"
elif numb == 2 and z == 3:
    aIPoints = aIPoints + 1
    print "You lost"
    print "The aI has " + str(aIPoints) + " point(s)"
elif numb == 3 and z == 1:
    aIPoints = aIPoints + 1
    print "You Lost!!!!"
    print "The aI has " + str(aIPoints) + " point(s)"
elif numb == 3 and z == 2:
```

This shows abstraction because all you see when it is running the program is What do you want to choose??? But in the code it ask that then it has all the different ways the game can be played. So instead of just seeing one line of writing the code shows that it is a lot more complex than it seems to be in the outcome.