

ASSIGNMENT-3

```
1) class Restaurant_Check:
    def __init__(self, check_number, sales_tax_percent, subtotal, table_number,
server_name):
        self._check_number = check_number
        self._sales_tax_percent = sales_tax_percent
        self._subtotal = subtotal
        self._table_number = table_number
        self._server_name = server_name
    def check_number(self):
        return self._check_number

    def sales_tax_percent(self):
        return self._sales_tax_percent

    def subtotal(self):
        return self._subtotal

    def table_number(self):
        return self._table_number

    def server_name(self):
        return self._server_name

    def calculate_total(self):
        sales_tax_amount = self.subtotal * (self.sales_tax_percent / 100)
        total = self.subtotal + sales_tax_amount
        return total

    def print_check(self):
        total = self.calculate_total()
        filename = f"check {self.check_number}.txt"
        with open(filename, 'w') as file:
            file.write(f"Check Number: {self.check_number}\n")
            file.write(f"Sales tax: {self.sales_tax_percent}%\n")
            file.write(f"Subtotal: ${self.subtotal:.2f}\n")
            file.write(f"Total: ${total:.2f}\n")
            file.write(f"Table Number: {self.table_number}\n")
            file.write(f"Server: {self.server_name}\n")

check = Restaurant_Check(443, 6.0, 23.14, 17, "Sonic the Hedgehog")
check.print_check()
```

2) import re

```
def validate_phone_number(phone_number):  
    if re.fullmatch(r'\d{10}', phone_number):  
        return True  
    return False
```

```
def validate_name(name):  
    if re.fullmatch(r'[A-Z][a-zA-Z\s]*', name):  
        return True  
    return False
```

```
def validate_email(email):  
    if re.fullmatch(r'[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}', email):  
        return True  
    return False
```

```
def validate_date(date):  
    if re.fullmatch(r'(0[1-9]|[1-2][0-9]|3[0-1])-(0[1-9]|1[0-2])-\d{4}', date):  
        return True  
    return False
```