

Jim Crivello - Bonus Section - 2/5/23

1. Create a DataFrame

```
In [22]: import pandas as pd
```

```
In [23]: contacts = [['Mike Green', 'demo1@deitel.com', '5555555555'], ['Sue Brown', 'demo2@dei
```

```
In [24]: contactsdf = pd.DataFrame(contacts, columns = ['Name', 'Email', 'Phone'])
```

```
In [25]: contactsdf
```

```
Out[25]:
```

	Name	Email	Phone
0	Mike Green	demo1@deitel.com	5555555555
1	Sue Brown	demo2@deitel.com	5555551234

2. Improve the DataFrame

```
In [26]: import re
```

```
In [27]: def get_formatted_phone(value):  
    result = re.fullmatch(r'(\d{3})(\d{3})(\d{4})', value)  
    return '-'.join(result.groups()) if result else value
```

```
In [28]: formatted_phone = contactsdf['Phone'].map(get_formatted_phone)
```

```
In [29]: formatted_phone
```

```
Out[29]:  
0    555-555-5555  
1    555-555-1234  
Name: Phone, dtype: object
```

```
In [30]: contactsdf['Phone'] = formatted_phone
```

```
In [31]: contactsdf
```

```
Out[31]:
```

	Name	Email	Phone
0	Mike Green	demo1@deitel.com	555-555-5555
1	Sue Brown	demo2@deitel.com	555-555-1234