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#!/usr/bin/env python3
```

```
#Import libraries
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```
import csv
```

```
import re
```

```
def contains_domain(address, domain):
```

```
    """Returns True if the email address contains the given domain,  
    in the domain position, false if not."""
```

```
    domain = r'[\w\.-]+@' + domain + '$'
```

```
    if re.match(domain,address):
```

```
        return True
```

```
    return False
```

```
def replace_domain(address, old_domain, new_domain):
```

```
    """Replaces the old domain with the new domain in  
    the received address."""
```

```
    old_domain_pattern = r'' + old_domain + '$'
```

```
    address = re.sub(old_domain_pattern, new_domain, address)
```

```
    return address
```

```
def main():
```

```
    """Processes the list of emails, replacing any instances of the  
    old domain with the new domain."""
```

```
    old_domain, new_domain = 'abc.edu', 'xyz.edu'
```

```
    csv_file_location = '/home/student-01-47cd3c1e210e/data/user_emails.csv'
```

```
    report_file = '/home/student-01-47cd3c1e210e/data' + '/updated_user_emails.csv'
```

```
    user_email_list = []
```

```
[ Directory ' ' is not writable ]
```

```
def main():
    """Processes the list of emails, replacing any instances of the
    old domain with the new domain."""
    old_domain, new_domain = 'abc.edu', 'xyz.edu'
    csv_file_location = '/home/student-01-47cd3c1e210e/data/user_emails.csv'
    report_file = '/home/student-01-47cd3c1e210e/data' + '/updated_user_emails.csv'
    user_email_list = []
    old_domain_email_list = []
    new_domain_email_list = []

    with open(csv_file_location, 'r') as f:
        user_data_list = list(csv.reader(f))
        user_email_list = [data[1].strip() for data in user_data_list[1:]]

        for email_address in user_email_list:
            if contains_domain(email_address, old_domain):
                old_domain_email_list.append(email_address)
                replaced_email = replace_domain(email_address, old_domain, new_domain)
                new_domain_email_list.append(replaced_email)

    email_key = ' ' + 'Email Address'
    email_index = user_data_list[0].index(email_key)
```

```
    for user in user_data_list[1:]:
        for old_domain, new_domain in zip(old_domain_email_list, new_domain_email_list):
            if user[email_index] == ' ' + old_domain:
                user[email_index] = ' ' + new_domain
f.close()
```

```
with open(report_file, 'w+') as output_file:
    writer = csv.writer(output_file)
    writer.writerows(user_data_list)
    output_file.close()
```

```
main()
```