


Deployment

Create GitHub project

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)



Required fields are marked with an asterisk (*).

| | |
|--|-------------------------------------|
| Owner * | Repository name * |
| <div> mpahawa ▼</div> / <div>Capstone_Deployment</div> | |
| | ✓ Capstone_Deployment is available. |

Great repository names are short and memorable. Need inspiration? How about [reimagined-pancake](#) ?

Description (optional)

Capstone Project for Upgrad

- ☒  **Public**
Anyone on the internet can see this repository. You choose who can commit.
- ☐  **Private**
You choose who can see and commit to this repository.

Initialize this repository with:

- ☒ **Add a README file**
This is where you can write a long description for your project. [Learn more about READMEs.](#)

Add .gitignore

.gitignore template: None ▼

Docker deployment

Create EC2

Select amazon linux as AMI

← → ↻ ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#LaunchInstanceWizard

aws Services Search for services, features, marketplace products, and docs [Alt+S] upgradmihirkurdekar @ 9789-8373-6692 Mumbai Sup

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 1: Choose an Amazon Machine Image (AMI)

Cancel and E

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace you can select one of your own AMIs.

Search for an AMI by entering a search term e.g. "Windows"

Search by Systems Manager para

Quick Start 1 to 44 of 44 AMIs

My AMIs
AWS Marketplace
Community AMIs
☐ Free tier only ⓘ

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-041d6256ed0f2061c (64-bit x86) / ami-0c03e9ead27ad6c0 (64-bit Arm)

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras. This AMI is the successor of the Amazon Linux AMI that is now under maintenance only mode and has been removed from this wizard.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

64-bit (x86)

64-bit (Arm)

Select

macOS Big Sur 11.6 - ami-0ec547d2b0d3be4c7

The macOS Big Sur AMI is an EBS-backed, AWS-supported image. This AMI includes the AWS Command Line Interface, Command Line Tools for Xcode, Amazon SSM Agent, and Homebrew. The AWS Homebrew Tap includes the latest versions of multiple AWS packages included in the AMI.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

64-bit (Mac)

Select

macOS Catalina 10.15.7 - ami-0d8d9456667b2e71c

The macOS Catalina AMI is an EBS-backed, AWS-supported image. This AMI includes the AWS Command Line Interface, Command Line Tools for Xcode, Amazon SSM Agent, and Homebrew. The AWS Homebrew Tap includes the latest versions of multiple AWS packages included in the AMI.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

64-bit (Mac)

Select

Security group for EC2

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: ☒ Create a new security group ☐ Select an existing security group

Security group name:

Description:

| Type ⓘ | Protocol ⓘ | Port Range ⓘ | Source ⓘ | Description ⓘ | |
|--------------|------------|--------------|------------------|----------------------------|---|
| SSH | TCP | 22 | Custom 0.0.0.0/0 | e.g. SSH for Admin Desktop | ✕ |
| Custom TCP F | TCP | 5000 | Custom 0.0.0.0/0 | e.g. SSH for Admin Desktop | ✕ |

Add Rule

Warning
Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Install git, docker and flask

sudo yum update

```

[ec2-user@ip-172-31-87-77 ~]$ sudo yum update
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
--> Package amazon-linux-extras.noarch 0:2.0.0-1.amzn2 will be updated
--> Package amazon-linux-extras.noarch 0:2.0.1-1.amzn2 will be an update
--> Package amazon-linux-extras-yum-plugin.noarch 0:2.0.0-1.amzn2 will be updated
--> Package amazon-linux-extras-yum-plugin.noarch 0:2.0.1-1.amzn2 will be an update
--> Package dmidecode.x86_64 1:3.0-5.amzn2.0.2 will be updated
--> Package dmidecode.x86_64 1:3.2-5.amzn2.1 will be an update
--> Package glib2.x86_64 0:2.56.1-9.amzn2.0.1 will be updated
--> Package glib2.x86_64 0:2.56.1-9.amzn2.0.2 will be an update
--> Package glibc.x86_64 0:2.26-54.amzn2 will be updated
--> Package glibc.x86_64 0:2.26-55.amzn2 will be an update
--> Package glibc-all-langpacks.x86_64 0:2.26-54.amzn2 will be updated
--> Package glibc-all-langpacks.x86_64 0:2.26-55.amzn2 will be an update
--> Package glibc-common.x86_64 0:2.26-54.amzn2 will be updated
--> Package glibc-common.x86_64 0:2.26-55.amzn2 will be an update
--> Package glibc-locale-source.x86_64 0:2.26-54.amzn2 will be updated
--> Package glibc-locale-source.x86_64 0:2.26-55.amzn2 will be an update
--> Package glibc-minimal-langpack.x86_64 0:2.26-54.amzn2 will be updated
--> Package glibc-minimal-langpack.x86_64 0:2.26-55.amzn2 will be an update
--> Package grubby.x86_64 0:8.28-23.amzn2.0.2 will be updated
--> Package grubby.x86_64 0:8.28-23.amzn2.0.3 will be an update
--> Package kernel.x86_64 0:4.14.248-189.473.amzn2 will be installed
--> Package kernel-tools.x86_64 0:4.14.246-187.474.amzn2 will be updated
--> Package kernel-tools.x86_64 0:4.14.248-189.473.amzn2 will be an update
--> Package libcrypt.x86_64 0:2.26-54.amzn2 will be updated
--> Package libcrypt.x86_64 0:2.26-55.amzn2 will be an update
--> Package openssl.x86_64 1:1.0.2k-19.amzn2.0.7 will be updated
--> Package openssl.x86_64 1:1.0.2k-19.amzn2.0.8 will be an update
--> Package openssl-libs.x86_64 1:1.0.2k-19.amzn2.0.7 will be updated
--> Package openssl-libs.x86_64 1:1.0.2k-19.amzn2.0.8 will be an update
--> Finished Dependency Resolution

Dependencies Resolved

```

sudo yum install docker

```

[ec2-user@ip-172-31-87-77 ~]$ sudo yum install docker
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
--> Package docker.x86_64 0:20.10.7-3.amzn2 will be installed
--> Processing Dependency: runc >= 1.0.0 for package: docker-20.10.7-3.amzn2.x86_64
--> Processing Dependency: libcgroup >= 0.40.rc1-5.15 for package: docker-20.10.7-3.amzn2.x86_64
--> Processing Dependency: containerd >= 1.3.2 for package: docker-20.10.7-3.amzn2.x86_64
--> Processing Dependency: pigz for package: docker-20.10.7-3.amzn2.x86_64
--> Running transaction check
--> Package containerd.x86_64 0:1.4.6-3.amzn2 will be installed
--> Package libcgroup.x86_64 0:0.41-21.amzn2 will be installed
--> Package pigz.x86_64 0:2.3.4-1.amzn2.0.1 will be installed
--> Package runc.x86_64 0:1.0.0-2.amzn2 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                                Arch                                Version
=====
Installing:
docker                                x86_64                              20.10.7-3.amzn2
Installing for dependencies:
containerd                            x86_64                              1.4.6-3.amzn2
libcgroup                             x86_64                              0.41-21.amzn2
pigz                                   x86_64                              2.3.4-1.amzn2.0.1
runc                                   x86_64                              1.0.0-2.amzn2
=====

Transaction Summary
=====
Install 1 Package (+4 Dependent packages)

Total download size: 69 M
Installed size: 285 M
Is this ok [y/d/N]: y
Downloading packages:
(1/5): libcgroup-0.41-21.amzn2.x86_64.rpm
(2/5): pigz-2.3.4-1.amzn2.0.1.x86_64.rpm
(3/5): docker-20.10.7-3.amzn2.x86_64.rpm
(4/5): containerd-1.4.6-3.amzn2.x86_64.rpm
(5/5): runc-1.0.0-2.amzn2.x86_64.rpm

```

sudo yum install git

```

[ec2-user@ip-172-31-87-77 ~]$ sudo yum install git
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
--> Package git.x86_64 0:2.32.0-1.amzn2.0.1 will be installed
--> Processing Dependency: perl-Git = 2.32.0-1.amzn2.0.1 for package: git-2.32.0-1.amzn2.0.1.x86_64
--> Processing Dependency: git-core-doc = 2.32.0-1.amzn2.0.1 for package: git-2.32.0-1.amzn2.0.1.x86_64
--> Processing Dependency: git-core = 2.32.0-1.amzn2.0.1 for package: git-2.32.0-1.amzn2.0.1.x86_64
--> Processing Dependency: emacs-filesystem >= 27.1 for package: git-2.32.0-1.amzn2.0.1.x86_64
--> Processing Dependency: perl(Term::ReadKey) for package: git-2.32.0-1.amzn2.0.1.x86_64
--> Processing Dependency: perl(Git::I18N) for package: git-2.32.0-1.amzn2.0.1.x86_64
--> Processing Dependency: perl(Git) for package: git-2.32.0-1.amzn2.0.1.x86_64
--> Running transaction check
--> Package emacs-filesystem.noarch 1:27.2-4.amzn2.0.1 will be installed
--> Package git-core.x86_64 0:2.32.0-1.amzn2.0.1 will be installed
--> Package git-core-doc.noarch 0:2.32.0-1.amzn2.0.1 will be installed
--> Package perl-Git.noarch 0:2.32.0-1.amzn2.0.1 will be installed
--> Processing Dependency: perl(Error) for package: perl-Git-2.32.0-1.amzn2.0.1.noarch
--> Package perl-TermReadKey.x86_64 0:2.30-20.amzn2.0.2 will be installed
--> Running transaction check
--> Package perl-Error.noarch 1:0.17020-2.amzn2 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                                Arch                                Version
=====
Installing:
git                                    x86_64                                2.32.0-1.amzn2.0.1
Installing for dependencies:
emacs-filesystem                      noarch                                1:27.2-4.amzn2.0.1
git-core                              x86_64                                2.32.0-1.amzn2.0.1
git-core-doc                          noarch                                2.32.0-1.amzn2.0.1
perl-Error                            noarch                                1:0.17020-2.amzn2
perl-Git                              noarch                                2.32.0-1.amzn2.0.1
perl-TermReadKey                     x86_64                                2.30-20.amzn2.0.2
Transaction Summary
=====
Install 1 Package (+6 Dependent packages)

Total download size: 7.8 M
Installed size: 38 M

```

sudo yum install pip

```

[ec2-user@ip-172-31-54-132 ~]$ sudo yum install pip
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core                                | 3.7 kB    00:00
Resolving Dependencies
There are unfinished transactions remaining. You might consider running yum-complete-transaction, or "yum-complete-transaction --cleanup-only" and "yum history redo last", first to finish them. If those don't work you'll have to try removing/installing packages by hand (maybe package-cleanup can help).
--> Running transaction check
--> Package python2-pip.noarch 0:20.2.2-1.amzn2.0.3 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                                Arch                                Version                                Repository                                Size
=====
Installing:
python2-pip                            noarch                                20.2.2-1.amzn2.0.3                    amzn2-core                                2.0 M
Transaction Summary
=====
Install 1 Package

Total download size: 2.0 M
Installed size: 9.5 M
Is this ok [y/d/N]: y
Downloading packages:
python2-pip-20.2.2-1.amzn2.0.3.noarch.rpm | 2.0 MB    00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : python2-pip-20.2.2-1.amzn2.0.3.noarch                1/1
  Verifying  : python2-pip-20.2.2-1.amzn2.0.3.noarch                1/1

Installed:
python2-pip.noarch 0:20.2.2-1.amzn2.0.3

Complete!

```

sudo pip install flask

```
[ec2-user@ip-172-31-54-132 ~]$ sudo pip install flask
DEPRECATION: Python 2.7 reached the end of its life on January 1st, 2020. Please
upgrade your Python as Python 2.7 is no longer maintained. pip 21.0 will drop s
upport for Python 2.7 in January 2021. More details about Python 2 support in pi
p can be found at https://pip.pypa.io/en/latest/development/release-process/#pyt
hon-2-support
WARNING: Running pip install with root privileges is generally not a good idea.
Try `pip install --user` instead.
Collecting flask
  Downloading Flask-1.1.4-py2.py3-none-any.whl (94 kB)
    |████████████████████████████████████████| 94 kB 6.9 MB/s
Collecting click<8.0,>=5.1
  Downloading click-7.1.2-py2.py3-none-any.whl (82 kB)
    |████████████████████████████████████████| 82 kB 2.7 MB/s
Collecting Jinja2<3.0,>=2.10.1
  Downloading Jinja2-2.11.3-py2.py3-none-any.whl (125 kB)
    |████████████████████████████████████████| 125 kB 84.7 MB/s
Collecting Werkzeug<2.0,>=0.15
  Downloading Werkzeug-1.0.1-py2.py3-none-any.whl (298 kB)
    |████████████████████████████████████████| 298 kB 73.7 MB/s
Collecting itsdangerous<2.0,>=0.24
  Downloading itsdangerous-1.1.0-py2.py3-none-any.whl (16 kB)
Collecting MarkupSafe>=0.23
  Downloading MarkupSafe-1.1.1-cp27-cp27mu-manylinux1_x86_64.whl (24 kB)
Installing collected packages: click, MarkupSafe, Jinja2, Werkzeug, itsdangerous
, flask
  Attempting uninstall: MarkupSafe
    Found existing installation: MarkupSafe 0.11
    Uninstalling MarkupSafe-0.11:
      Successfully uninstalled MarkupSafe-0.11
  Attempting uninstall: Jinja2
    Found existing installation: Jinja2 2.7.2
    Uninstalling Jinja2-2.7.2:
      Successfully uninstalled Jinja2-2.7.2
Successfully installed Jinja2-2.11.3 MarkupSafe-1.1.1 Werkzeug-1.0.1 click-7.1.2
flask-1.1.4 itsdangerous-1.1.0
[ec2-user@ip-172-31-54-132 ~]$
```

Start docker

sudo service docker start

sudo usermod -a -G docker ec2-user

sudo reboot

```
[ec2-user@ip-172-31-87-77 campaigns-flask-serverless]$ sudo service docker start
Redirecting to /bin/systemctl start docker.service
[ec2-user@ip-172-31-87-77 campaigns-flask-serverless]$ sudo usermod -a -G docker ec2-user
[ec2-user@ip-172-31-87-77 campaigns-flask-serverless]$ docker ps
Got permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get "http://%2Fvar%2Frun%2Fdocker.sock/v1/26": permission denied
[ec2-user@ip-172-31-87-77 campaigns-flask-serverless]$ sudo reboot
Connection to ec2-54-89-84-114.compute-1.amazonaws.com closed by remote host.
Connection to ec2-54-89-84-114.compute-1.amazonaws.com closed.
```

sudo service docker start

docker ps

```
[ec2-user@ip-172-31-87-77 ~]$ sudo service docker start
Redirecting to /bin/systemctl start docker.service
[ec2-user@ip-172-31-87-77 ~]$ docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
[ec2-user@ip-172-31-87-77 ~]$
```

Get Source code into EC2

git clone <https://github.com/mpahawa/campaigns-flask-serverless.git>

Build and start docker

docker build -t campaigns .

```
[ec2-user@ip-172-31-87-77 campaigns-flask-serverless]$ docker build -t campaigns .
Sending build context to Docker daemon 5.299MB
Step 1/11 : FROM python:3.7-slim
--> 375e181c2688
Step 2/11 : WORKDIR /app/
--> Using cache
--> 1313a8e4bee2
Step 3/11 : COPY requirements.txt /app/
--> Using cache
--> ab4d8236e2d3
Step 4/11 : RUN pip install -r ./requirements.txt
--> Using cache
--> 712c0b0643ea
Step 5/11 : COPY app.py .
--> Using cache
--> df436d75e7ff
Step 6/11 : COPY *.pkl ./
--> aec4f202c7ee
Step 7/11 : COPY templates/*.html ./templates/
--> 32dd7f7140da
Step 8/11 : COPY Test_data.csv .
--> b5f3cc23acc1
Step 9/11 : ENTRYPOINT ["python"]
--> Running in c0d5821a3531
Removing intermediate container c0d5821a3531
--> a129cc08d8a7
Step 10/11 : CMD ["app.py"]
--> Running in 8d873d33e45c
Removing intermediate container 8d873d33e45c
--> d48f5bb5dbcb
Step 11/11 : EXPOSE 5000
--> Running in 9b8d99a59158
Removing intermediate container 9b8d99a59158
--> 9199e066cd55
Successfully built 9199e066cd55
Successfully tagged campaigns:latest
```

docker run -t -d -p 5000:5000 campaigns

```
ec2-user@ip-172-31-87-77 campaigns-flask-serverless]$ docker run -t -d -p 5000:5000 campaigns
2f35ef29f4fb4328dee8b9d72605912c35f7f58b5fc2e7da389b2ee0762c4cf
ec2-user@ip-172-31-87-77 campaigns-flask-serverless]$ docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                               NAMES
2f35ef29f4fb   campaigns     "python app.py"         4 seconds ago Up 2 seconds  0.0.0.0:5000->5000/tcp, :::5000->5000/tcp  pedantic_roentgen
ec2-user@ip-172-31-87-77 campaigns-flask-serverless]$ docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                               NAMES
2f35ef29f4fb   campaigns     "python app.py"         2 minutes ago Up 2 minutes  0.0.0.0:5000->5000/tcp, :::5000->5000/tcp  pedantic_roentgen
ec2-user@ip-172-31-87-77 campaigns-flask-serverless]$ docker logs 2f35ef29f4fb
* Serving Flask app 'app' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: off
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
```

Deployed App screen shots

Prediction Home

[Age Analysis](#) [Gender Analysis](#)

Predictions

[Home](#)

| campaign | device_id | description |
|----------|----------------------|--|
| 4 | -9003024964574030000 | Bundled smartphone offers for the age group [0-24] |
| 4 | -8353633601469210000 | Bundled smartphone offers for the age group [0-24] |
| 4 | -6897020094565110000 | Bundled smartphone offers for the age group [0-24] |
| 4 | -5585718693005890000 | Bundled smartphone offers for the age group [0-24] |
| 4 | -4262757933958110000 | Bundled smartphone offers for the age group [0-24] |
| 4 | -6857195135381240 | Bundled smartphone offers for the age group [0-24] |
| 4 | 1717614301151560000 | Bundled smartphone offers for the age group [0-24] |
| 4 | 2519387054138400000 | Bundled smartphone offers for the age group [0-24] |
| 4 | 3038173071407360000 | Bundled smartphone offers for the age group [0-24] |
| 4 | 6228517405226570000 | Bundled smartphone offers for the age group [0-24] |
| 4 | 6435531434380250000 | Bundled smartphone offers for the age group [0-24] |
| 4 | 6436019780582010000 | Bundled smartphone offers for the age group [0-24] |
| 4 | 7393416743486600000 | Bundled smartphone offers for the age group [0-24] |
| 4 | 7626919836157560000 | Bundled smartphone offers for the age group [0-24] |
| 4 | 7850241797817570000 | Bundled smartphone offers for the age group [0-24] |
| 5 | -9080896288558470000 | Special offers for payment wallet offers [24-32] |
| 5 | -8562311995574260000 | Special offers for payment wallet offers [24-32] |
| 5 | -7006138226710080000 | Special offers for payment wallet offers [24-32] |
| 5 | -6761791831226090000 | Special offers for payment wallet offers [24-32] |
| 5 | -3495451345551020000 | Special offers for payment wallet offers [24-32] |
| 5 | -3067806326232410000 | Special offers for payment wallet offers [24-32] |
| 5 | -4914699637760950000 | Special offers for payment wallet offers [24-32] |
| 5 | -4317577182834580000 | Special offers for payment wallet offers [24-32] |
| 5 | -1771246883976060000 | Special offers for payment wallet offers [24-32] |
| 5 | -1299359798887540000 | Special offers for payment wallet offers [24-32] |
| 5 | -1056379824269900000 | Special offers for payment wallet offers [24-32] |
| 5 | -18294146237227900 | Special offers for payment wallet offers [24-32] |
| 5 | 1874308258075080000 | Special offers for payment wallet offers [24-32] |
| 5 | 1902768050899590000 | Special offers for payment wallet offers [24-32] |
| 5 | 3832459248646780000 | Special offers for payment wallet offers [24-32] |
| 5 | 3864672045456310000 | Special offers for payment wallet offers [24-32] |
| 5 | 5352829853797110000 | Special offers for payment wallet offers [24-32] |
| 5 | 6440604850918000000 | Special offers for payment wallet offers [24-32] |
| 5 | 7282162378550750000 | Special offers for payment wallet offers [24-32] |
| 5 | 8085592460854130000 | Special offers for payment wallet offers [24-32] |
| 6 | -591037927679493000 | Special cashback offers for Privilege Membership [32+] |
| 6 | 1603956637484510000 | Special cashback offers for Privilege Membership [32+] |
| 6 | 2948104315232910000 | Special cashback offers for Privilege Membership [32+] |
| 6 | 4508069675663490000 | Special cashback offers for Privilege Membership [32+] |
| 6 | 5911316915301130000 | Special cashback offers for Privilege Membership [32+] |
| 6 | 6628613590050850000 | Special cashback offers for Privilege Membership [32+] |
| 6 | 7217910398487470000 | Special cashback offers for Privilege Membership [32+] |
| 6 | 8231243155939480000 | Special cashback offers for Privilege Membership [32+] |
| 6 | 8256066307270200000 | Special cashback offers for Privilege Membership [32+] |
| 6 | 8642523170587800000 | Special cashback offers for Privilege Membership [32+] |

Path: /gender on click of gender

Predictions

[Home](#)

| campaign | device_id | Description |
|----------|----------------------|---|
| 1 | -8810677098572110000 | Specific personalised fashion-related campaigns targeting female customers |
| 1 | -8562311995574260000 | Specific personalised fashion-related campaigns targeting female customers |
| 1 | -7006138226710080000 | Specific personalised fashion-related campaigns targeting female customers |
| 1 | -4317577182834580000 | Specific personalised fashion-related campaigns targeting female customers |
| 1 | -3775758989316750000 | Specific personalised fashion-related campaigns targeting female customers |
| 1 | -3365155781191060000 | Specific personalised fashion-related campaigns targeting female customers |
| 1 | -1833888400593950000 | Specific personalised fashion-related campaigns targeting female customers |
| 1 | -237840407705312000 | Specific personalised fashion-related campaigns targeting female customers |
| 1 | 1556063603403040000 | Specific personalised fashion-related campaigns targeting female customers |
| 1 | 1793973678492670000 | Specific personalised fashion-related campaigns targeting female customers |
| 1 | 1874308258075080000 | Specific personalised fashion-related campaigns targeting female customers |
| 1 | 3864672045456310000 | Specific personalised fashion-related campaigns targeting female customers |
| 1 | 4508069675663490000 | Specific personalised fashion-related campaigns targeting female customers |
| 1 | 6628613590050850000 | Specific personalised fashion-related campaigns targeting female customers |
| 1 | 7247668499837840000 | Specific personalised fashion-related campaigns targeting female customers |
| 2 | -9080896288558470000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | -8165252275151050000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | -5949440942329240000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | -5495451345551020000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | -5041451728203970000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | -4457934313456070000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | -4013651731994810000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | -2901224534649370000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | -873624726654422000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | -374345410936460000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | -213353779945617000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | 1892006536093720000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | 2284311608510200000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | 4246704990765040000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | 5237798119228100000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | 5899050094160970000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | 6044154447492110000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | 6440604850918000000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | 6917204221135840000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 2 | 8488817413061090000 | Specific cashback offers on special days (International Women's Day etc) targeting female customers |
| 3 | -5615710754997930000 | Personalised call and data packs targeting male customers |
| 3 | -727204878593826000 | Personalised call and data packs targeting male customers |
| 3 | -591037927679493000 | Personalised call and data packs targeting male customers |
| 3 | 2948104315232910000 | Personalised call and data packs targeting male customers |
| 3 | 5911316915301130000 | Personalised call and data packs targeting male customers |
| 3 | 7217910398487470000 | Personalised call and data packs targeting male customers |
| 3 | 7850241797817570000 | Personalised call and data packs targeting male customers |
| 3 | 8231243155939480000 | Personalised call and data packs targeting male customers |
| 3 | 8256066307270200000 | Personalised call and data packs targeting male customers |
| 3 | 8642523170587800000 | Personalised call and data packs targeting male customers |

