Package: smdocker (via r-universe)

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Title Build 'Docker Images' in 'Amazon SageMaker Studio' using 'Amazon Web Service CodeBuild'

Version 0.1.4

Description Allows users to easily build custom 'docker images' <https://docs.docker.com/> from 'Amazon Web Service Sagemaker' <https://aws.amazon.com/sagemaker/> using 'Amazon Web Service CodeBuild' <https://aws.amazon.com/codebuild/>.

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URL https://github.com/DyfanJones/sm-docker

BugReports https://github.com/DyfanJones/sm-docker/issues

Encoding UTF-8

Imports jsonlite, paws.compute, paws.developer.tools, paws.machine.learning, paws.management, paws.storage, paws.security.identity, zip, stats, utils, uuid

Suggests covr, crayon, mockery, testthat (>= 3.0.0)

Roxygen list(markdown = TRUE)

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Collate 'utils.R' 'logs.R' 'code_build.R' 'builder.R' 'config.R' 'logging.R' 'sm_role.R' 'main.R' 'zzz.R'

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`sagemaker_get_execution_role` *Return the* `AWS ARN` *execution role from* `AWS SageMaker`

Description

Return the `AWS ARN` execution role from `AWS SageMaker`

Usage

```
sagemaker_get_execution_role()
```

Value

Character containing the `AWS ARN` role retrieved from `AWS SageMaker`

`sm_build` *Use* `AWS CodeBuild` *to build docker images and push them to Amazon* `ECR`

Description

This function takes a directory containing a dockerfile, and builds it on `AWS CodeBuild`. The resulting image is then stored in `AWS ECR` for later use.

Usage

```
sm_build(
  repository = NULL,
  compute_type = c("BUILD_GENERAL1_SMALL", "BUILD_GENERAL1_MEDIUM",
    "BUILD_GENERAL1_LARGE", "BUILD_GENERAL1_2XLARGE"),
  role = NULL,
  dir = ".",
  bucket = NULL,
  vpc_id = NULL,
  subnet_ids = list(),
  security_group_ids = list(),
  log = TRUE,
  ...
)
```

Arguments

repository	(character): The ECR repository:tag for the image (default: sagemaker-studio-${domain_id}:latest)
compute_type	(character): The CodeBuild compute type (default: BUILD_GENERAL1_SMALL)
role	(character): The IAM role name for CodeBuild to use (default: the Studio execution role).
dir	(character): Directory to build
bucket	(character): The S3 bucket to use for sending data to CodeBuild (if None, use the SageMaker SDK default bucket).
vpc_id	(character): The Id of the VPC that will host the CodeBuild Project (such as vpc-05c09f91d48831c8c).
subnet_ids	(list): List of subnet ids for the CodeBuild Project (such as subnet-0b31f1863e9d31a67)
security_group_ids	(list): List of security group ids for the CodeBuild Project (such as sg-0ce4ec0d0414d2ddc).
log	(logical): Show the logs of the running CodeBuild build
...	docker build parameters https://docs.docker.com/engine/reference/commandline/build/#options (NOTE: use "_" instead of "-" for example: docker optional parameter build-arg becomes build_arg)

Value

invisible character vector of AWS ECR image uri.

Examples

```
## Not run:
# Execute on current directory.
sm_build()

# Execute on different directory.
sm_build(dir = "my-project")

# Add extra docker arguments
sm_build(
  file = "/path/to/Dockerfile",
  build_arg = "foo=bar"
)

## End(Not run)
```

---

smdocker_config *Set* paws config *across* smdocker *package*

Description

This function sets up paws client config list for all AWS calls. This function only needs to be used when changing default settings when connecting to AWS.

Usage

```
smdocker_config(
  aws_access_key_id = NULL,
  aws_secret_access_key = NULL,
  aws_session_token = NULL,
  region_name = NULL,
  profile_name = NULL,
  disable_ssl = FALSE,
  anonymous = FALSE,
  refresh = FALSE,
  ...
)
```

Arguments

aws_access_key_id	(character): AWS access key ID
aws_secret_access_key	(character): AWS secret access key
aws_session_token	(character): AWS temporary session token
region_name	(character): Default region when creating new connections
profile_name	(character): The name of a profile to use. If not given, then the default profile is used.
disable_ssl	(logical): Whether or not to use SSL. By default, SSL is used.
anonymous	(logical): Set up anonymous credentials when connecting to AWS.
refresh	(logical): Refresh cached smdocker config
...	Other parameters within paws client.

Value

Invisible list, containing credentials for paws clients.

See Also

ecr codebuild sagemaker cloudwatchlogs iam sts s3

Examples

```
# Set up connection using profile
smdocker_config(profile_name = "smdocker_example")

# Reset connection to connect to a different region
smdocker_config(
  profile_name = "smdocker_example",
  region_name = "us-east-1",
  refresh = TRUE
)
```

smdocker_log *smdocker logging system*

Description

Ability to configure smdocker logging system, through the use of smdocker helper function `smdocker_log` or `R:base options` function. `options` configurable parameters:

- `smdocker.log_level` (integer): The minimum log level that should be tracked
- `smdocker.log_file` (character): path for logs to populate, default output logs to console.
- `smdocker.log_timestamp_fmt` (character): see `format.POSIXct()`

Usage

```
smdocker_log(
  level = 3L,
  file = "",
  timestamp_fmt = "%Y-%m-%d %H:%M:%OS3"
)
```

Arguments

`level`	(integer): the level logging threshold. • 4L : DEBUG • 3L : INFO • 2L : WARNING • 1L : ERROR
`file`	(character): path for logs to populate, default output logs to console.
`timestamp_fmt`	(character): timestamp format, see `format.POSIXct()`.

Value

`NULL` invisible

Examples

```
## Not run:
# log to a file
temp_file <- tempfile()
smdocker_log(file = temp_file)

# change log threshold to INFO
smdocker_log(level = 3L)

# reset to default config
smdocker_log()
```

```
# options() equivalents:

# log to a file
temp_file <- tempfile()
options(smdocker.log_file = temp_file)

# change log threshold to INFO
options(smdocker.log_level = 3L)

## End(Not run)
```

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