

Azure Application Insights is a comprehensive application performance management (APM) service provided by Microsoft Azure. It is designed to help developers and IT professionals monitor and improve the performance, availability, and usage of web applications and services.

The `APPINSIGHTS_INSTRUMENTATIONKEY` is a unique identifier assigned to each Application Insights resource created within an Azure subscription. It serves as a key that allows the application to send telemetry data, such as requests, exceptions, traces, and custom events, to the corresponding Application Insights resource.

```
resource "azurerm_application_insights" "example" {
  name                = "tf-test-appinsights"
  location            = azurerm_resource_group.example.location
  resource_group_name = azurerm_resource_group.example.name
  application_type     = "web"
}

output "instrumentation_key" {
  value = azurerm_application_insights.example.instrumentation_key
}

output "app_id" {
  value = azurerm_application_insights.example.app_id
}
```

```
resource "azurerm_application_insights" "test" {
  name                = "test-terraform-insights"
  location            = "${azurerm_resource_group.test.location}"
  resource_group_name = "${azurerm_resource_group.test.name}"
  application_type     = "Web"
}

resource "azurerm_function_app" "test" {
  name                = "test-terraform"
  location            = "${azurerm_resource_group.test.location}"
  resource_group_name = "${azurerm_resource_group.test.name}"
  app_service_plan_id = "${azurerm_app_service_plan.test.id}"
  storage_connection_string = "${azurerm_storage_account.test.primary_connection_string}"

  app_settings {
    "APPINSIGHTS_INSTRUMENTATIONKEY" = "${azurerm_application_insights.test.instrumentation_key}"
  }
}
```

Link: https://registry.terraform.io/providers/hashicorp/azurerm/latest/docs/resources/application_insights