



## IBM Bluemix Development & Certification

Summary decks for a course that covers the A to Z of IBM Bluemix.

For more information visit:  
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1. Two types of services
  - Managed Services
  - User Provided Service
2. Using services from apps

**PS: Certification practice test questions NOT available in the summary decks**

# Discounted access to the courses:



<https://www.udemy.com/ibm-bluemix/?couponCode=BLUE100>

Coupon Code = **BLUE100**



<https://www.udemy.com/rest-api/?couponCode=REST100>

Coupon Code = **REST100**

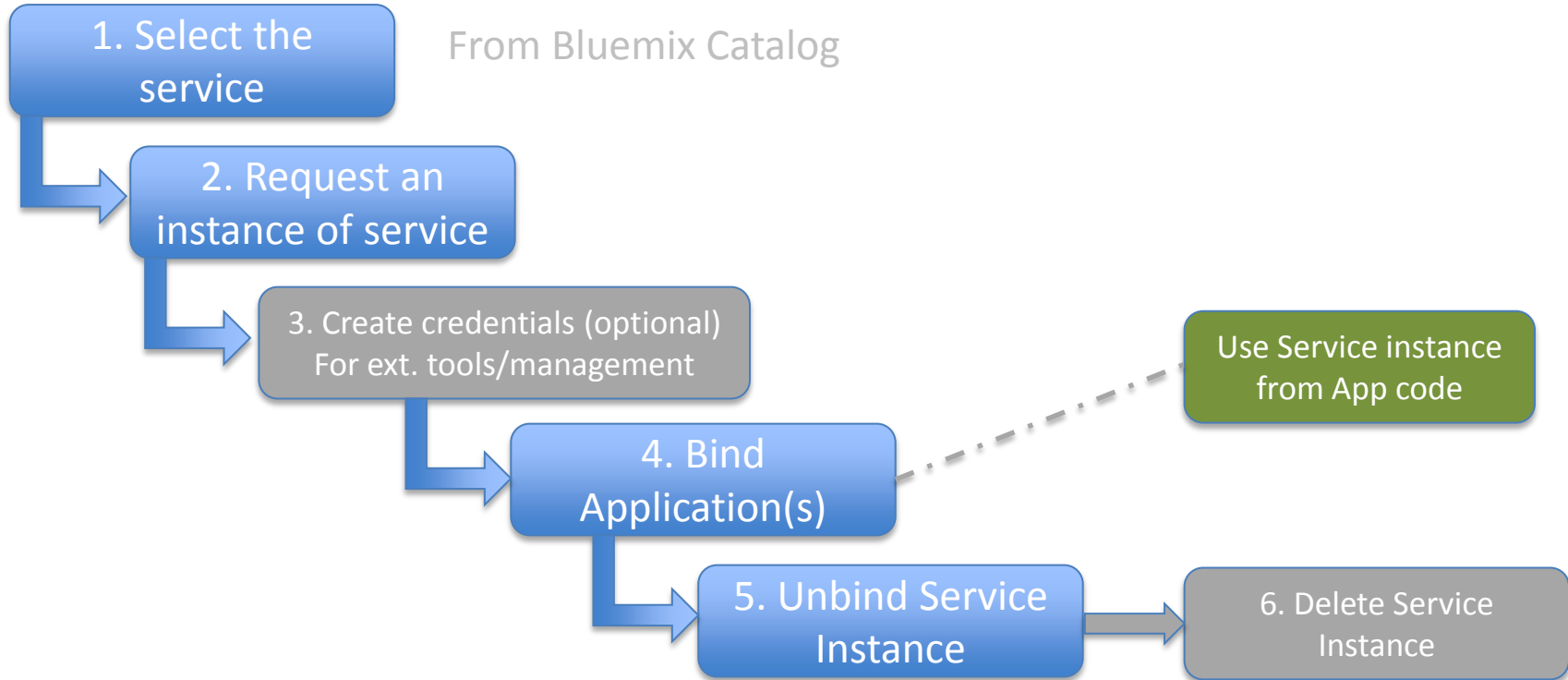
## PS:

- For latest coupons & courses please visit: <http://www.acloudfan.com>
- Enter to **WIN Free access** – please visit: <http://www.acloudfan.com/win-free-access>



Managed Services

# Using the services



# VCAP\_SERVICES for Managed Services

- For bindable services CF adds details to the VCAP\_SERVICES in JSON format

Credentials

For the service

Name of offering

Name of service instance

Plan for service

```
"VCAP_SERVICES": {  
  "cleardb": [  
    {  
      "credentials": {  
        "hostname": "us-cdbr-iron-east-03.cleardb.net",  
        "jdbcUrl": "jdbc:mysql://us-cdbr-iron-east-03.cleardb.net:3306/  
        "name": "ad_6e0a0000-80b2",  
        "password": "c5xxxxxxxx",  
        "port": "3306",  
        "uri": "mysql://ad_6e0a0000-80b2:c5xxxxxxxx@us-cdbr-iron-east-03.cleardb.net:3306/  
        "username": "he5xxxxxxxx;b6"  
      },  
      "label": "cleardb",  
      "name": "MySQL",  
      "plan": "spark",  
      "tags": [  
        "Data Stores",  
        "data_management",  
        "ibm_third_party"  
      ]  
    }  
  ]  
}
```



# Not all managed services populate VCAP\_SERVICES

- Value is delivered directly to the user
- Refer documentation on how to use the specific service(s)
- Examples:



Static Analyzer



Delivery Pipeline

IBM



# Summary

- Service instance needs to be **created** and **bound** to the application
- Service instance credentials may be created manually for use from external tools
- Service instance unbinding is **NOT** the same as service instance deletion
- Service instance makes credentials available through **VCAP\_SERVICES** environment variable



User Provided Services



# User provided services

- Allows you to represent external assets as services
  - E.g., Databases, Messaging, Logging ..
  - Populates the VCAP\_SERVICES environment variable
- Benefits
  - Manage the credentials for external services
  - Consistency – all service properties available in VCAP\_SERVICES

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# Create User Provided Service (CUPS)

- `cf cups SERVICE_INST [-p CREDENTIALS] [-I SYSLOG_LOG_DRAIN]`



create-user-provided-service



User provided  
service name



Syslog Drain URL

- Provide just params for interactive mode
- JSON with name-value pairs

- `cf uups` for updating the UPS



# VCAP\_SERVICES for UPSI

- JSON array for user provided services

User provided services  
JSON array

Credentials provide with -p

Syslog URL with -l

```
"VCAP_SERVICES": {  
  "Auto-Scaling": [  
    {  
      "credentials": {  
        "agentPassword": "0493",  
        "agentUsername": "agen",  
        "app_id": "9e72d547-a3a5-47c9-adb0-38d5",  
        "service_id": "212c97f4-b041-4d87-aeab-",  
        "url": "https://Scaling4.ng.bluemix.net",  
      },  
      "label": "Auto-Scaling",  
      "name": "Auto-Scaling-us",  
      "plan": "free",  
      "tags": [  
        "bluemix_extensions",  
        "ibm_created",  
        "dev_ops"  
      ],  
    },  
  ],  
  "user-provided": [  
    {  
      "credentials": {},  
      "label": "user-provided",  
      "name": "Acme_App_Logs",  
      "syslog_drain_url": "syslog://logs3.pape",  
      "tags": []  
    },  
  ],  
}
```



Using a service from app

# Using the bound service instance

- Applications need to dynamically fetch credentials for the instance
  - Parse the JSON available in VCAP\_SERVICES
  - Auto configuration – depends on build pack
- Use the credentials extracted from VCAP\_SERVICES in the application configuration
  - E.g., application uses the credential to set up DB connection

