

MICHIGAN STATE

UNIVERSITY

Beta Presentation Project Plato

The Capstone Experience

Team GM

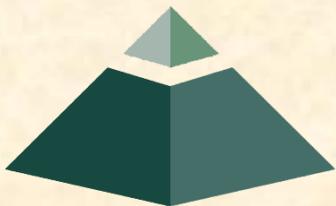
Colin Coppersmith

Simeon Goolsby

Alex Lepird

Matthew Eaton

Tao Tao



*From Students...
...to Professionals*

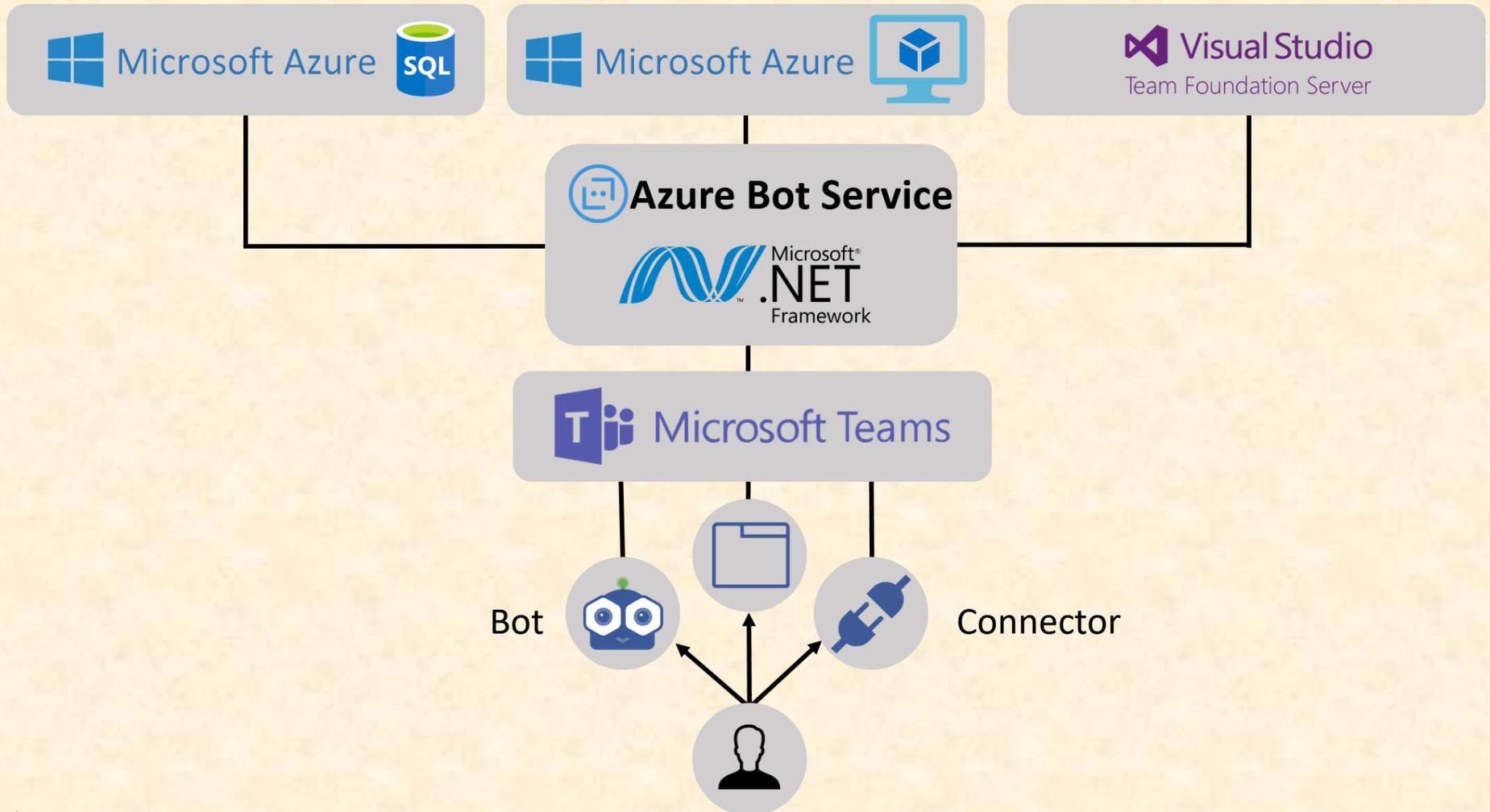
Department of Computer Science and Engineering
Michigan State University
Spring 2018

Project Overview

- Consolidate Common Developer Tasks Into Microsoft Teams
- Create and Manipulate Virtual Machines
- Discover and Run Test Cases
- Consists of Three Components:
 1. AI Chatbot
 2. Microsoft Teams Tab
 3. Microsoft Teams Connector
- Provide a Unified and Familiar Environment for Developers



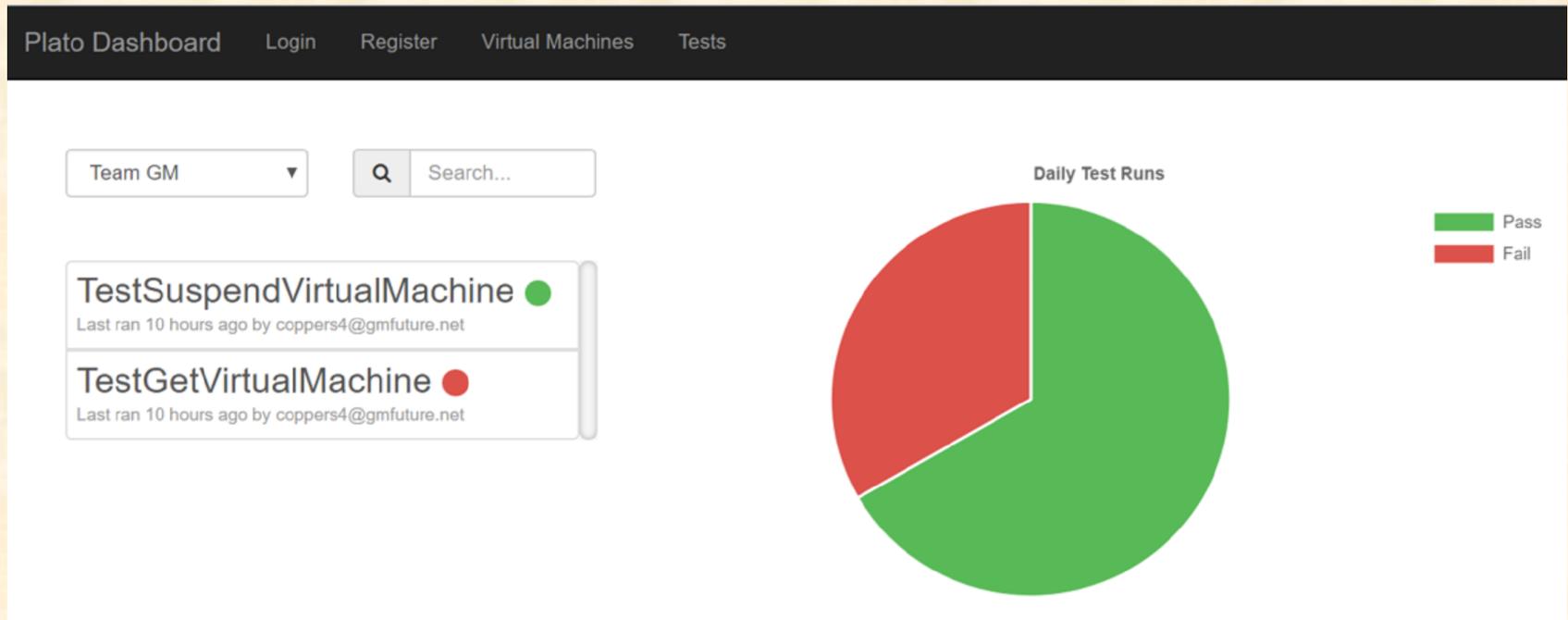
System Architecture



Virtual Machines Dashboard



Tests Dashboard



Asking the Bot for Help

Alex Lepird (MSU) 10:40 PM
gm-plato help

▼ Collapse all

gm-plato 10:40 PM
Here are some things I can do

- create a virtual machine
- delete a virtual machine
- run a virtual machine
- stop a virtual machine

⋮ 📌 👍

← Reply

The screenshot shows a chat interface with a dark background. At the top, a user named 'Alex Lepird (MSU)' has sent a message 'gm-plato help' at 10:40 PM. Below this, a bot named 'gm-plato' has responded at 10:40 PM with the text 'Here are some things I can do'. The bot's response includes a list of four actions, each in a white rounded rectangle: 'create a virtual machine', 'delete a virtual machine', 'run a virtual machine', and 'stop a virtual machine'. To the right of the bot's message are three icons: a vertical ellipsis, a bookmark, and a thumbs-up. At the bottom left of the chat area is a 'Reply' button with a left-pointing arrow.



Creating a VM

Colin Coppersmith (MSU) 11:33 PM
gm-plato create a debian virtual machine with 16gb of ram and 4 cores and a 256gb hard drive

▼ Collapse all

gm-plato 11:33 PM
I can help you create a virtual machine! Let's get started.

What would you like to name your virtual machine?

Colin Coppersmith (MSU) 11:33 PM
gm-plato CoolDebianVM

gm-plato 11:33 PM
Would you like to create a **Debian** VM with **16GB** of RAM, **4 Cores**, and **256GB** of hard disk space?

Colin Coppersmith (MSU) 11:33 PM
gm-plato yes

gm-plato 11:33 PM
OK! Your virtual machine has been created! Click 'start' to start it!



CoolDebianVM
OS: Debian RAM: 16GB Cores: 4 Disk Space:
256GB Status: New



Stopping a Virtual Machine

The screenshot shows a Microsoft Teams chat window for a team named 'Team GM'. The chat is in a 'General' channel. The conversation starts with Colin Coppersmith (MSU) asking 'gm-plato stop a vm'. gm-plato responds with 'Which virtual machine would you like to stop?'. Colin Coppersmith (MSU) replies 'gm-plato Teddy'. gm-plato asks 'Are you sure you want to stop this virtual machine?'. Colin Coppersmith (MSU) answers 'yes'. gm-plato then says 'yes'. Finally, gm-plato sends a message: 'I've stopped your VM! You can click on the card to view the VM in the dashboard or ask me to perform another task.' Below this message is a card for the virtual machine 'Teddy' with the following specifications: OS: Ubuntu, RAM: 12GB, Cores: 12, Disk Space: 12GB, and Status: Stopped.

Activity
Chat
Teams
Meetings
Files

Favorites
Team GM

Team GM > General ... Private GM Confidential

Conversations Files Wiki Plato Dashboard style-sheet Plato 2 more +

Colin Coppersmith (MSU) 10:44 PM
gm-plato stop a vm

Collapse all

gm-plato 10:44 PM
Which virtual machine would you like to stop?

Colin Coppersmith (MSU) 10:44 PM
gm-plato Teddy

gm-plato 10:44 PM
Are you sure you want to stop this virtual machine?

Colin Coppersmith (MSU) 10:45 PM
yes

gm-plato yes

gm-plato 10:45 PM
I've stopped your VM! You can click on the card to view the VM in the dashboard or ask me to perform another task.


Teddy
OS: Ubuntu RAM: 12GB Cores: 12 Disk Space: 12GB Status: Stopped



Running a Test

Activity
Chat
Teams
Meetings
Files

Favorites
Team GM

Team GM > General ... Private GM Confidential

Conversations Files Wiki Plato Dashboard style-sheet Plato 2 more +

Colin Coppersmith (MSU) 10:42 PM
gm-plato run a test

gm-plato 10:42 PM
What project do you want to run your test on?

Colin Coppersmith (MSU) 10:43 PM
gm-plato Good Project

gm-plato 10:43 PM
What test do you want to run?

Colin Coppersmith (MSU) 10:44 PM
gm-plato TestGetVirtualMachine

gm-plato 10:44 PM
I've ran your test! You can click on the card to view the test in the dashboard or ask me to perform another task.

TestGetVirtualMachine: Failed
Running User: coppers4@gmfuture.net
Date: 4/2/2018 10:44:08 PM



Connector for Test Case Runs

The screenshot displays a Microsoft Teams interface. On the left is a navigation pane with icons for Activity, Chat, Teams, Meetings, and Files. The main area shows a chat window for 'Team GM > General ...' with a status of 'Private | GM Confidential'. The chat history includes a message from 'PlatoConnector' at 11:02 AM. The message content is a 'Test Case Ran' notification with the following details:

Test Case	TestStartVirtualMachine
Time Ran	4/2/2018 11:02:55 AM
Running User	coppers4@gmfuture.net
Outcome	Pass

Below the message is a 'Reply' button.

What's left to do?

- Improve UI/UX of Bot and Dashboard
- Persist conversation data across a thread
- Authenticating users through TFS and Azure
- Project Video



Questions?

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