

MATEJ MINÁRIK

RUBY STORIES VII

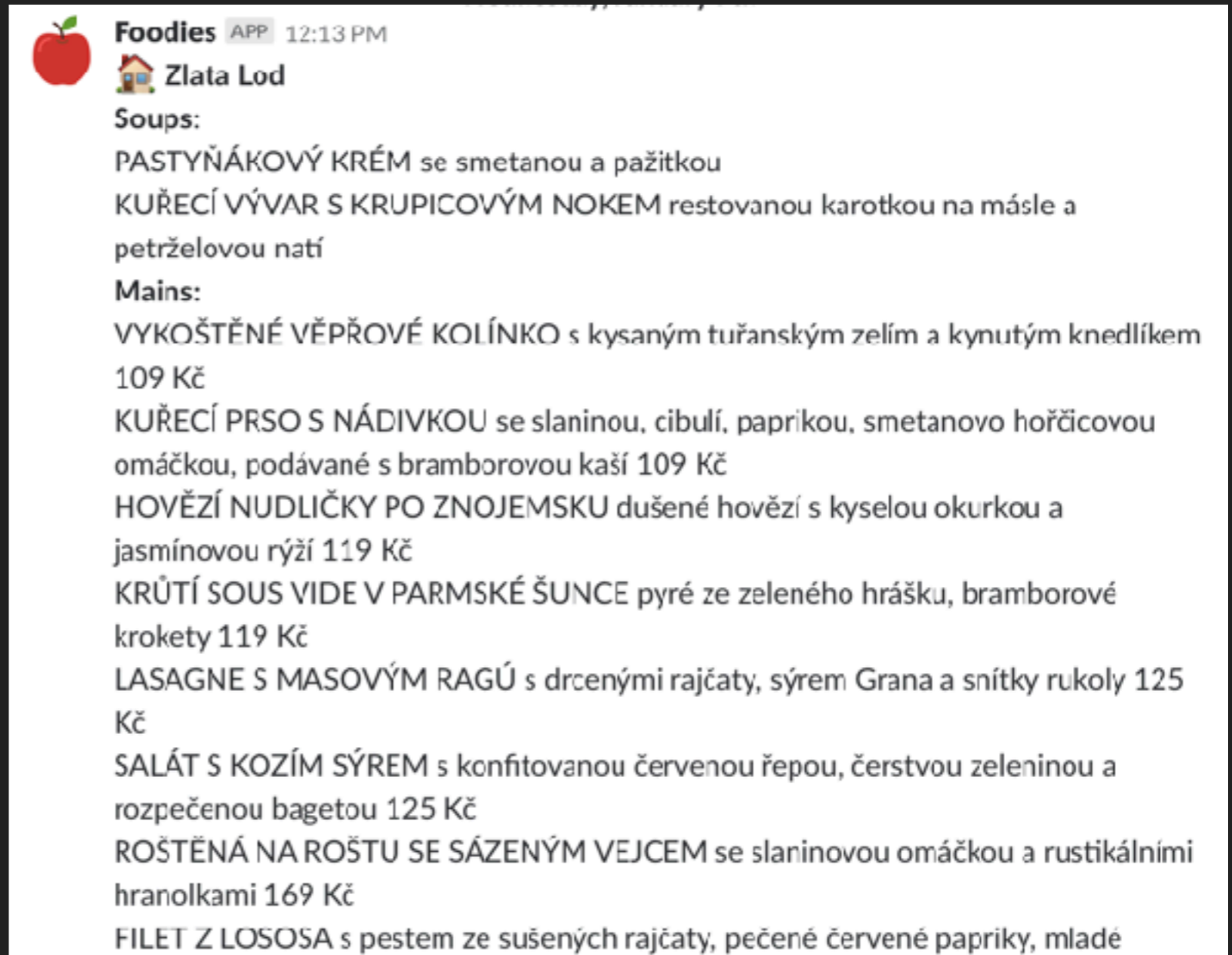
[PRIMEHAMMER.COM](https://primehammer.com)

BUILDING


SERVERLESS SLACKBOT

OVERVIEW

- ▶ Serverless application
- ▶ Fetch lunch menus
- ▶ Slack Slackbot
- ▶ Slack - Slash Command
- ▶ Serverless framework
- ▶ AWS Lambda
- ▶ Node.js



Foodies APP 12:13 PM

 **Zlata Lod**

Soups:

- PASTYŇÁKOVÝ KRÉM se smetanou a pažitkou
- KUŘECÍ VÝVAR S KRUPICOVÝM NOKEM restovanou karotkou na másle a petrželovou natí

Mains:

- VYKOŠTĚNÉ VĚPŘOVÉ KOLÍNKO s kysaným tuřanským zelím a kynutým knedlíkem 109 Kč
- KUŘECÍ PRSO S NÁDIVKOU se slaninou, cibulí, paprikou, smetanovo hořčicovou omáčkou, podávané s bramborovou kaší 109 Kč
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Foodies Application

SLACKBOT

SLACKBOT

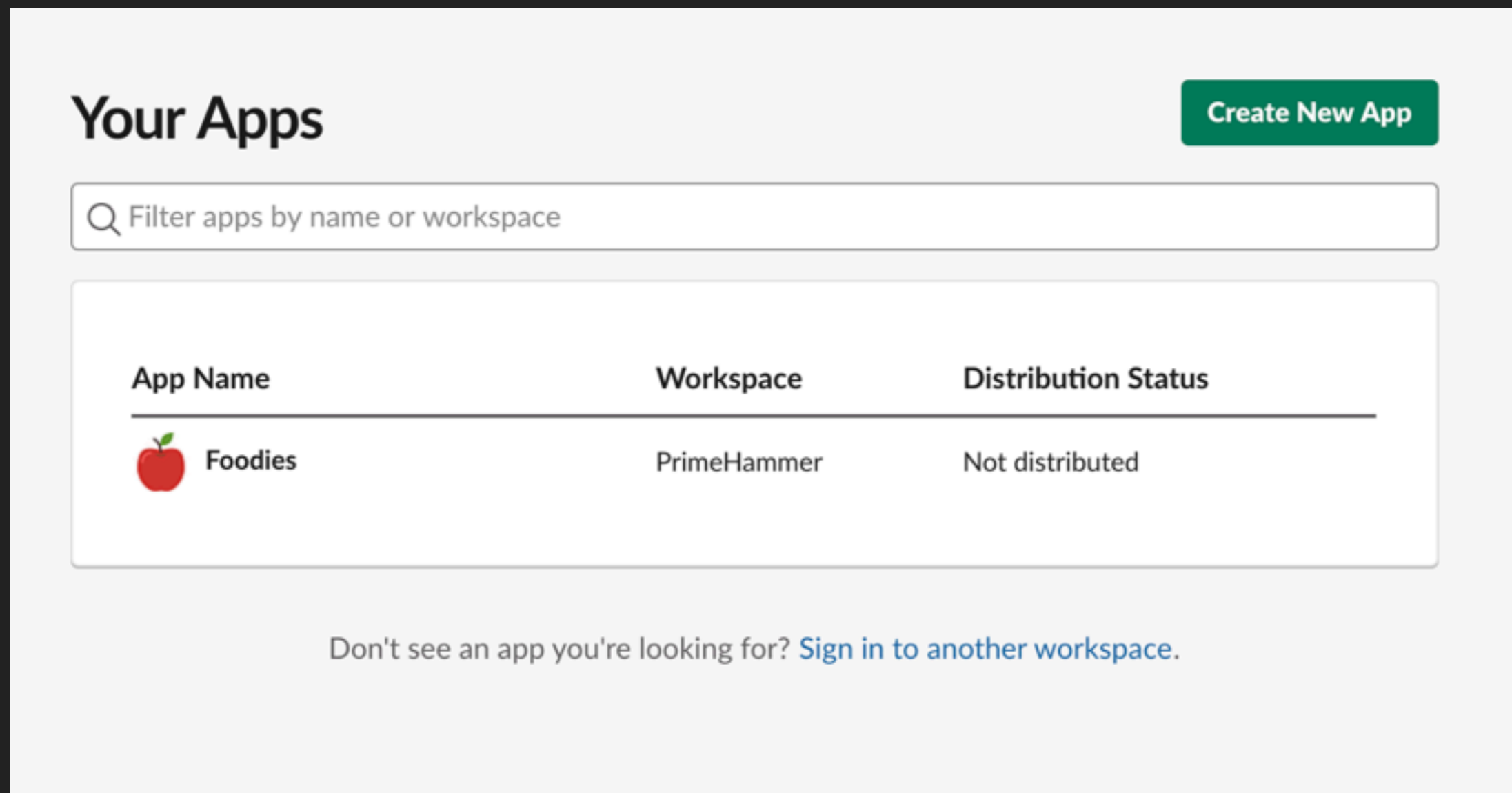
- ▶ Application to interact with users via conversation
- ▶ Name, face, personality
- ▶ Send direct messages, post messages, upload files, invited/kicked out of channels
- ▶ Events API (app_mention, message, ...)
- ▶ Events received as a POST request with payload

SLASH COMMANDS


- ▶ “Console Application”
- ▶ Much easier concept and integration
- ▶ `/giphy [args]`
- ▶ Commands received as POST requests

CREATE NEW SLACK APP



▶ <https://api.slack.com/apps>



The screenshot shows the 'Your Apps' interface in Slack. At the top right is a green button labeled 'Create New App'. Below it is a search bar with the placeholder text 'Filter apps by name or workspace'. A table below the search bar lists the installed apps. The table has three columns: 'App Name', 'Workspace', and 'Distribution Status'. One app is listed: 'Foodies' with a red apple icon, located in the 'PrimeHammer' workspace and is 'Not distributed'. At the bottom of the page, there is a message: 'Don't see an app you're looking for? [Sign in to another workspace.](#)'

App Name	Workspace	Distribution Status
 Foodies	PrimeHammer	Not distributed

CREATE NEW SLASH COMMAND

 Foodies 

Settings



- Basic Information
- Collaborators
- Install App
- Manage Distribution

Features

- Incoming Webhooks
- Interactive Components
- Slash Commands**
- OAuth & Permissions
- Event Subscriptions
- Bot Users
- User ID Translation

Slash Commands

Commands enable users to interact with your app from within Slack. [Learn more.](#)

Name	Description	
/lunchie	Fetches today's lunch menus!	 

[Create New Command](#)

CONFIGURE SLASH COMMAND

Command	<input type="text" value="/lunchie"/> ⓘ
Request URL	<input type="text" value="https://a12x340kl.execute-api.eu-w..."/> ⓘ
Short Description	<input type="text" value="Fetches today's lunch menus!"/>
Usage Hint	<input type="text" value="[forkys lod]"/> <small>Optionally list any parameters that can be passed.</small>
Escape channels, users, and links sent to your app	<input type="checkbox"/>
Unescaped: @user #general	
Preview of Autocomplete Entry	
<div style="border: 1px dashed gray; padding: 10px;"><p>Commands matching "lunchie"</p><p>Foodies _____</p><p>/lunchie [forkys lod] Fetches today's lunch menus!</p></div>	

SERVERLESS

SERVERLESS ARCHITECTURE

- ▶ Build. Deploy. Enjoy.
- ▶ “Infinitely” scaleable
- ▶ Pay-per-execution

- ▶ Infinitely expensive
- ▶ More complex

**SOMEONE SMARTER THAN YOU IS
RUNNING YOUR INFRASTRUCTURE AND
CHARGES YOU SHITLOAD OF MONEY FOR
YOUR INCOMPETENCE OR LAZINESS.**

Daniel Tlach (@danaketh)

SERVERLESS FRAMEWORK

- ▶ Toolkit for building serverless applications
- ▶ AWS, Azure, Google, IBM, ...
- ▶ `npm install serverless`
- ▶ `serverless create`
- ▶ `serverless deploy`

AWS LAMBDA

- ▶ Computing Functions
- ▶ Backends
- ▶ Data Processing
 - ▶ File processing
 - ▶ Stream processing
- ▶ Ruby, Node.js, Python, Java, C#

AWS LAMBDA PRICING

- ▶ Number of requests
- ▶ Duration of execution (rounded to 100ms)
- ▶ Memory
- ▶ Free Tier
 - ▶ 1M requests / month
 - ▶ 400 000 1GB-seconds ~4.5 days
 - ▶ 3 200 000 128MB-seconds ~37 days

IMPLEMENTATION


```
service: aws-foodies

plugins:
  - serverless-offline

provider:
  name: aws
  runtime: nodejs8.10
  stage: dev
  region: eu-west-2

functions:
  app:
    handler: index.handler
    events:
      - http: ANY /
      - http: 'ANY {proxy+}'
```

```
const serverless = require("serverless-http");
const express = require("express");
const bodyParser = require("body-parser");

const app = express();

app.use(bodyParser.json());
app.use(bodyParser.urlencoded({ extended: true }));

// ...

module.exports.handler = serverless(app);
```

```
const defaultResponse = {
  mrkdwn: true,
  response_type: "in_channel",
  text: "Sorry, something went wrong."
};

app.post("/", async function(req, res) {
  const { text } = req.body;

  if (text === "lod") {
    const menu = await fetchZlataLod();
    res.json({ ...defaultResponse, text: menu });
  } else if (text === "forkys") {
    const menu = await fetchForkys();
    res.json({ ...defaultResponse, text: menu });
  } else {
    res.json({ ...defaultResponse, text: "Not Supported" });
  }
});
```

GOTCHAS

- ▶ Think about the use-case
- ▶ Startup time
 - ▶ Use Prepack for faster code initialisation
 - ▶ `serverless-plugin-warmup`
- ▶ Parsing POST `www-urlencoded-form`
- ▶ Deployments create different URLs (Configuration)

SLACKBOT USE CASES

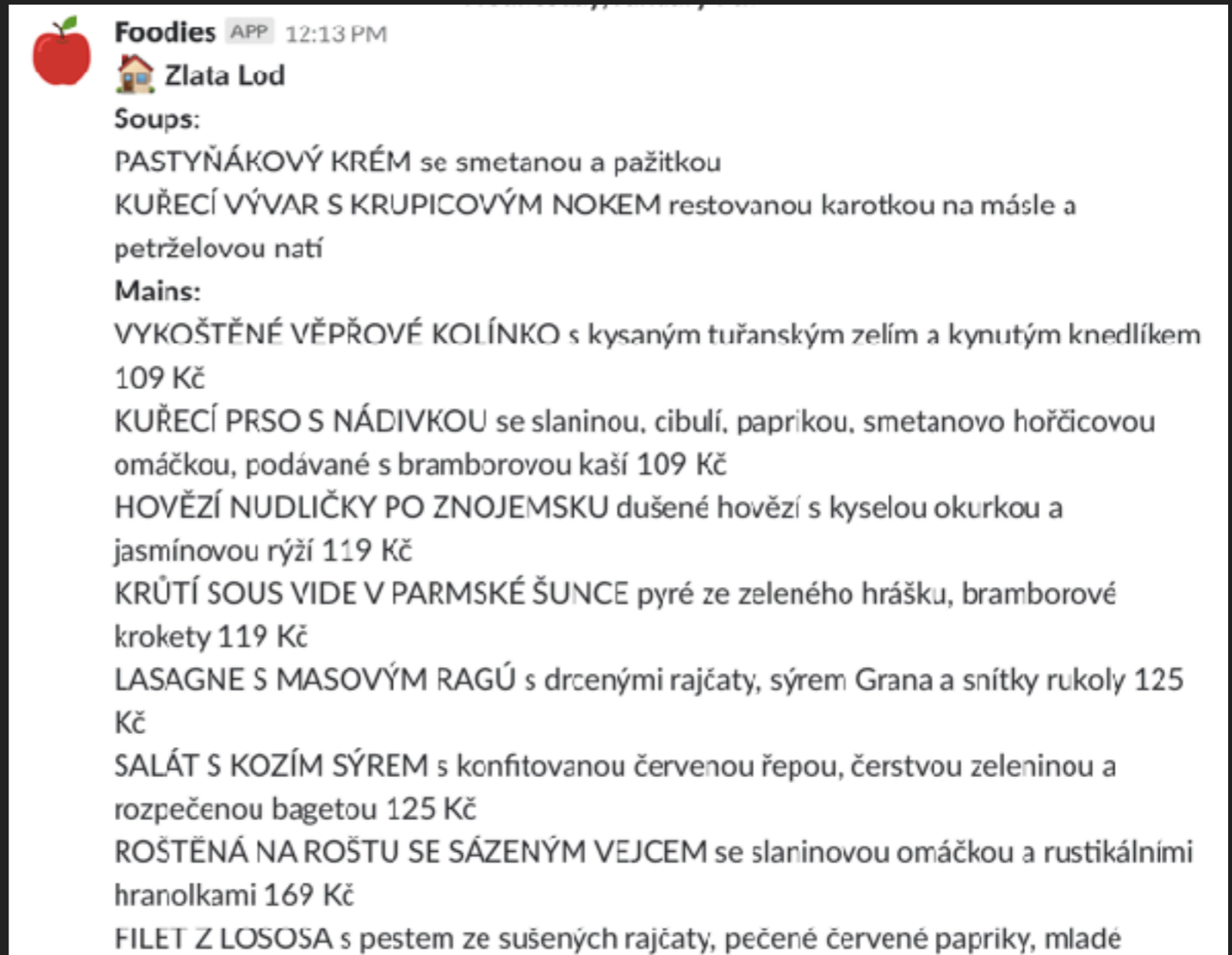
- ▶ Lunch Menus
- ▶ Bug/Ticket Details
- ▶ Sample Testing Data/Credentials
- ▶ Notifications
 - ▶ Internal Statistics: # of Users, Conversions, Bugs, ...
- ▶ ...

SOURCES


- ▶ <https://api.slack.com/bot-users>
- ▶ <https://api.slack.com/slash-commands>
- ▶ <https://zapier.com/blog/how-to-build-chat-bot/>
- ▶ <https://serverless.com/>
- ▶ <https://theburningmonk.com/>
- ▶ <https://aws.amazon.com/lambda/>

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