

# Arine Intern Coding Challenges

## Question 1

Write a program that prints the numbers from 1 to 100. But for multiples of 3 print “Fizz” instead of the number and for the multiples of 5 print “Buzz”. For numbers which are multiples of both 3 and 5 print “FizzBuzz”.

Use the following function signature:

```
def fizzbuzz() -> None
```

## Question 2

Write a function that takes a string that may be a float, and returns either the converted string as float or the default value provided as an argument if the string does not represent a float.

Use the following function signature:

```
def convert_to_float(input_str: str, default: float) -> float
```

## Question 3

Write a function that takes a data object (see [Sample Data Object](#) below) as an argument and returns the list of all medications that have “antihtn” in their “drugGroup”. If there are no matching medications, return an empty list.

Use the following function signature:

```
def get_antihtn_meds(data_obj: dict) -> list
```

## Question 4

Write a function that takes a data object (see [Sample Data Object](#) below) as an argument and returns the list of medications whose “doseForm” is any form of “tablet”. If there are no matching medications, return an empty list.

Use the following function signature:

```
def get_tablet_meds(data_obj: dict) -> list
```

## Question 5

Write a function that takes a data object (see [Sample Data Object](#) below) as an argument and returns the “ndc9” value of the medication that was filled most recently. If there’s a tie, return any of the “ndc9” for medications filled on that day. If there are no medications, return None.

Use the following function signature:

```
def get_latest_med_ndc(data_obj: dict) -> Optional[str]
```

# Sample Data Object

```
{
  "etlUpdated": "2012-12-21T23:58:00",
  "id": "123",
  "medications": [
    {
      "ndc9": "39017-0147",
      "brandName": "AMLODIPINE BESYLATE",
      "dosageStrength": "5",
      "dosageUnit": "mg",
      "doseForm": "tablet",
      "drugGroup": [
        "ccb",
        "antihtn"
      ],
      "route": "oral",
      "quantity": "90",
      "daysSupply": "90",
      "fills": [
        {
          "fillDate": "2012-02-18",
          "daysSupply": "90",
          "quantity": "90"
        },
        {
          "fillDate": "2012-05-16",
          "daysSupply": "90",
          "quantity": "90"
        },
        {
          "fillDate": "2012-08-06",
          "daysSupply": "90",
          "quantity": "90"
        },
        {
          "fillDate": "2012-11-01",
          "daysSupply": "90",
          "quantity": "90"
        }
      ],
      "display": "AMLODIPINE BESYLATE 5 MG",
    }
  ]
}
```

```
"unitsPerDay": "1",
"dosePerDay": "5"
},
{
  "ndc9": "60505-2671",
  "brandName": "ATORVASTATIN CALCIUM",
  "genericName": "ATORVASTATIN CALCIUM",
  "dosageStrength": "80",
  "dosageUnit": "mg",
  "doseForm": "tablet, film coated",
  "drugGroup": [
    "statin",
    "azoledi",
    "antilipid",
    "cms_statin",
    "cms_spc_statin"
  ],
  "route": "oral",
  "quantity": "90",
  "daysSupply": "90",
  "fills": [
    {
      "fillDate": "2012-04-10",
      "daysSupply": "90",
      "quantity": "90"
    },
    {
      "fillDate": "2012-07-09",
      "daysSupply": "90",
      "quantity": "90"
    },
    {
      "fillDate": "2012-10-09",
      "daysSupply": "90",
      "quantity": "90"
    },
    {
      "fillDate": "2012-01-03",
      "daysSupply": "90",
      "quantity": "90"
    }
  ]
}
```

```
        "fillDate": "2012-04-01",
        "daysSupply": "90",
        "quantity": "90"
    },
    ],
    "unitsPerDay": "1",
    "dosePerDay": "80"
},
{
    "ndc9": "68382-0136",
    "brandName": "LOSARTAN POTASSIUM",
    "genericName": "LOSARTAN POTASSIUM",
    "dosageStrength": "50",
    "dosageUnit": "mg",
    "doseForm": "tablet, film coated",
    "drugGroup": [
        "arb",
        "antihtn",
        "cms_rasa"
    ],
    "route": "oral",
    "quantity": "90",
    "daysSupply": "90",
    "fills": [
        {
            "fillDate": "2012-02-25",
            "daysSupply": "90",
            "quantity": "90"
        },
        {
            "fillDate": "2012-05-25",
            "daysSupply": "90",
            "quantity": "90"
        },
        {
            "fillDate": "2012-07-14",
            "daysSupply": "90",
            "quantity": "90"
        },
        {
            "fillDate": "2012-10-15",
            "daysSupply": "90",
```

```
        "quantity": "90"
      }
    ],
    "unitsPerDay": "1",
    "dosePerDay": "50"
  },
  {
    "ndc9": "00378-0018",
    "brandName": "METOPROLOL TARTRATE",
    "genericName": "METOPROLOL TARTRATE",
    "dosageStrength": "25",
    "dosageUnit": "mg",
    "doseForm": "tablet, film coated",
    "drugGroup": [
      "antihtn",
      "betablocker"
    ],
    "route": "oral",
    "quantity": "180",
    "daysSupply": "90",
    "fills": [
      {
        "fillDate": "2012-02-06",
        "daysSupply": "90",
        "quantity": "180"
      },
      {
        "fillDate": "2012-05-16",
        "daysSupply": "90",
        "quantity": "180"
      },
      {
        "fillDate": "2012-08-13",
        "daysSupply": "90",
        "quantity": "180"
      },
      {
        "fillDate": "2012-11-12",
        "daysSupply": "90",
        "quantity": "180"
      }
    ]
  }
]
```

```
        "fillDate": "2012-02-16",
        "daysSupply": "90",
        "quantity": "180"
    },
    {
        "unitsPerDay": "2",
        "dosePerDay": "50"
    },
    {
        "resourceType": "cmr"
    }
}
```