

# Presidential Initiative for Artificial Intelligence and Computing (PIAIC)

## PIAIC Batch 2 IoT (Session ONLINE)



<https://www.piaic.org>

Internet of Things (IoT) Specialist Program

Quarter I: Rust Programming

### Assignment # 4

#### Q # 1. Write a Rust program,

- (a) Make an enum **Direction**. With variants forward, backward, left, right.
- (b) Make a user defined function with name **“check\_direction”**. That take a variable of Data Type **“Direction”** as parameter.
- (c) Inside the body of function **“check\_direction”**. Handle all cases with **“match”** for example. If Direction::forward Then print “Vehicle is moved forward”.
- (d) Call **check\_direction** with enum variant as an argument from **“main”** function.

#### Q# 2. Write a Rust Program,

- (a) Make a user defined function with name **“add\_one”**.
  - 1) **add\_one** function is required to plus one to its parameter.
  - 2) take a variable of Data Type **Option<i32>** as parameter.
  - 3) return a value of Data Type **Option<i32>**.
- (b) Handle both cases for **Option<i32>** enum with **match** operator.
- (c) From main function pass **some** variant and a **none** variant to the function **“add\_one”**.
- (d) Print the return value from **“add\_one”** function in *main function*.

For reference, review book and videos available on portal “Rust Programming Language Lesson 6”.

**Important:** Use meaningful names while declaring variables and functions. Avoid 'a', 'b', 'x', 'y', etc..

Please click [here](#) to submit your assignment

(or paste this link in your browser <https://forms.gle/tCPtJYKtMUxNjJcn8> )