

# Presidential Initiative for Artificial Intelligence and Computing (PIAIC)

## PIAIC Batch 2 IoT (Session 12:15PM - 3:15PM)



<https://www.piaic.org>

Internet of Things (IoT) Specialist Program

Quarter I: Rust Programming

## Assignment # 8

### 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/PDExfmxs43xs8UJg9> )