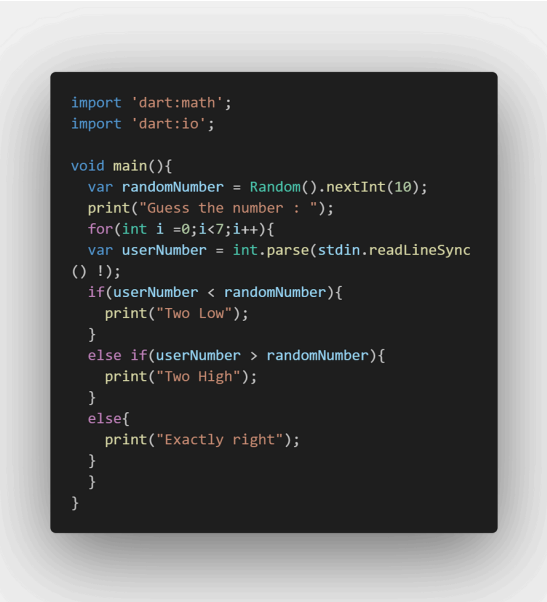
Task 3 - Part 1 :

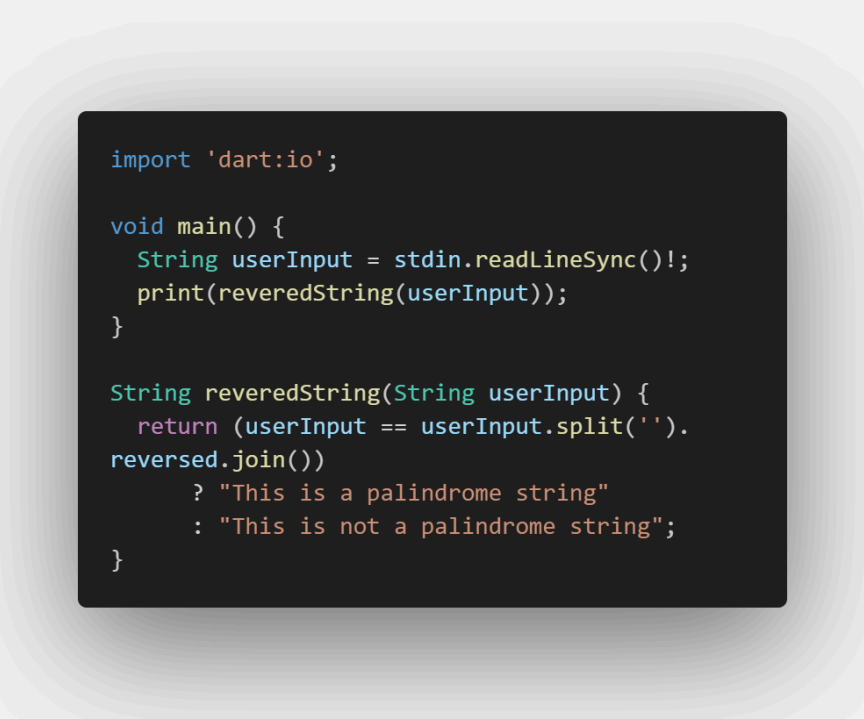
1.



```dart
import 'dart:math';
import 'dart:io';

void main(){
  var randomNumber = Random().nextInt(10);
  print("Guess the number : ");
  for(int i =0;i<7;i++){
  var userNumber = int.parse(stdin.readLineSync
() !);
  if(userNumber < randomNumber){
    print("Two Low");
  }
  else if(userNumber > randomNumber){
    print("Two High");
  }
  else{
    print("Exactly right");
  }
  }
}
```

2



```dart
import 'dart:io';

void main() {
  String userInput = stdin.readLineSync()!;
  print(reveredString(userInput));
}

String reveredString(String userInput) {
  return (userInput == userInput.split('').
reversed.join())
      ? "This is a palindrome string"
      : "This is not a palindrome string";
}
```

3

```dart
import 'dart:math';
import 'dart:io';

String generatePassword(int length) {
  const chars =

'ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrst
uvwxyz0123456789!@#
\$%^&*()';
  final random = Random();
  return List.generate(length, (index) => chars
[random.nextInt(chars.length)])
      .join();
}

void main() {
  print("Enter the password length:");
  String? input = stdin.readLineSync();

  if (input != null && int.tryParse(input) !=
null) {
    int passwordLength = int.parse(input);
    String password = generatePassword(
passwordLength);
    print('Generated Password: $password');
  } else {
    print(
"Invalid input. Please enter a valid number.");
  }
}
```

4

```dart
void main() {
  List a = [1, 1, 2, 3, 5, 8, 13, 21, 34, 55,
89];
  List b = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,
12, 13];
  Set aSet = a.toSet();
  Set bSet = b.toSet();
  Set c = aSet.intersection(bSet);

  print(c);
}
```

5.

```dart
void main() {
  List a = [1, 4, 9, 16, 25, 36, 49, 81, 100];
  subList(a);
}

void subList(List list1) {
  List results = [];
  for (int i = 0; i < list1.length; i++) {
    if (list1[i] % 2 == 0) {
      results.add(list1[i]);
    }
  }
  print(results);
}
```