Assignment

For Implementation Engineer position

1. Assuming you have the following two requests that were sent to your server by a client:

A)

```
{
        "Age":25,
        "Height":170,
        "Weight":80,
        "Name":{
                "First":"Charles",
                "Last":””
        },
        "HairColour":"Brown",
        "Address":{
                "City":"Kansas city",
                "Street":"Blue street",
                "House":"547"
        },
        "IsEmployed":true
}
```

B)

```
{
        "Age":"Twenty Five",
        "Height":170,
        "Weight":80,
        "Name":{
                "First":"Charles",
                "Last":"TheMock"
        },
        "HairColour":"Brown",
        "Address":{
                "City":"Kansas city",
                "Street":"Blue street",
                "House":"547"
        },
        "MaritalStatus":"Single",
        "IsEmployed":true
}
```

That were sent to the following controller:

```
using Microsoft.AspNetCore.Mvc;
using System;
1.  using System.Collections.Generic;
2.  using System.Linq;
3.  using System.Threading.Tasks;
4.
5.  namespace Professional.Services.Assignment
6.
7.  {
8.      public class AddCandidateController : Controller
9.      {
10.         [HttpPost]
11.         public IActionResult Index([FromBody] Candidate candidate)
12.         {
13.             try
14.             {
15.                 SaveCandidate(candidate);
16.                 return Ok();
17.             }
18.             catch (Exception ex)
19.             {
20.                 return StatusCode(500, ex);
21.             }
22.         }
23.
24.         private void SaveCandidate(Candidate candidate)
25.        {
26.             var firstName = candidate.Name.First.Trim();
27.             var lastName = candidate.Name.Last.Trim();
28.             var age = candidate.Age;
29.             var height = candidate.Height;
30.             var weight = candidate.Weight;
31.             var hairColour = candidate.HairColour.Trim();
32.             var maritalStatus = candidate.MaritalStatus.Trim();
33.             var isEmployed = candidate.IsEmployed;
34.             var city = candidate.Address.City.Trim();
35.             var street = candidate.Address.Street.Trim();
36.             var house = candidate.Address.House.Trim();
37.
38.         }
39.     }
40.
41.
```

```
42.
43.     public class Candidate
44.     {
45.         public Name Name { get; set; }
46.         public int Age { get; set; }
47.         public int Height { get; set; }
48.         public int Weight { get; set; }
49.         public string HairColour { get; set; }
50.         public Address Address { get; set; }
51.         public string MaritalStatus { get; set; }
52.         public bool IsEmployed { get; set; }
53.     }
54.
55.     public class Name
56.     {
57.         public string First { get; set; }
58.         public string Last { get; set; }
59.     }
60.
61.     public class Address
62.     {
63.         public string City { get; set; }
64.         public string Street { get; set; }
65.         public string House { get; set; }
66.     }
67.
68. }
```

And the following responses were received:

A)
500 object was null, Professional.Services.Assignment.cs Line 32
B)
400 Bad request

Please write a clear and cordial email to the client explaining what is wrong with their requests and what they should do to fix it.

2. Below is a request url and body. How would you set it up on Postman to get a response? Please make screenshots using Postman client that include all your edits on all the relevant screens.

Url: https://exmaple.com/api/send

Authentication: basic - username: abcd, password: 1234

Body:

```
{
  "GId": "welnfjregnrkhnj",
  "AId": "hjtfkjfthdrt",
  "LoanType": "1",
  "FirstName": "Mike",
  "LastName": "Smith"
}
```

3. Your client has embedded your JS snippet in their website and there's an error in the console when running the code. List the steps you would take using Chrome developer tools to investigate the issue.

4.
    a. How would you formulate a REST API request for retrieving details of a dog named “humi”? (write the exact request syntax in a standard format).
    b. Apparently “humi” is not in the database, what http error code would you return?

5. Consider the Whatsapp feature of voice messages. Write a short documentation to explain the value of this feature and its main attributes.

6. Below are 2 tables - Merchants and Tokens. Tokens is a table that holds tokens for a merchant to use. Each merchant can have multiple tokens.

Table: Merchants
Columns:

- Id (nvarchar, not null),
- Name (nvarchar, not null),
- PartnerId (nvarchar, not null),
- Group (nvarchar, not null),
- JoinDate (nvarchar, not null)

Table: Tokens
Columns:

- Id (nvarchar, not null),
- InsertDate (DateTime, not null),
- MerchantId (nvarchar, not null),
- TokenType (int, not null),
- IsActive (bit, not null)

Write a query that will fetch merchants that have inactive tokens that were created after Aug 30, 2021 for merchants that joined after Jan 1, 2020. Required output: merchant name, merchant join date. Don't display rows with duplicate data.

Good luck!