CNG 457

SPECIAL TOPICS IN COMPUTER ENGINEERING: SOFTWARE CONSTRUCTION

PHASE -3

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1. Get all phones along with their details.

HTTP Request Type	**Get**
URL	**/getPhones**
Body	
Response	

Response:

```
[
  {
    "productID": 1,
    "screenSize": 6.7,
    "price": 1099.0,
    "model": "iPhone 12 Pro Max",
    "brand": {
      "brandID": 1,
      "brandName": "Apple"
    },
    "commentAndRatingList": [
      {
        "commentAndRatingID": 5,
        "rating": 5,
        "customerComment": "It was cool",
        "product": 1
      },
      {
        "commentAndRatingID": 6,
        "rating": 1,
        "customerComment": "Very expensive.",
        "product": 1
      },
      {
        "commentAndRatingID": 7,
        "rating": 3,
```

```json
      "customerComment": "It is good but expensive",
      "product": 1
    }
  ],
  "additionalFeatureList": [
    {
      "additionalFeatureID": 1,
      "additionalFeature": "Long battery life",
      "productList": [
        {
          "productID": 5,
          "screenSize": 5.5,
          "price": 249.99,
          "model": "Galaxy S3",
          "brand": {
            "brandID": 3,
            "brandName": "Samsung"
          },
          "commentAndRatingList": [
            {
              "commentAndRatingID": 10,
              "rating": 5,
              "customerComment": "Cheap and fast",
              "product": 5
            }
          ],
          "additionalFeatureList": [
            1,
            {
              "additionalFeatureID": 2,
              "additionalFeature": "Fingerprint",
              "productList": [
                5
              ]
            }
```

```json
          ],
          "internalMemory": "64 GB"
        },
        1
      ]
    }
  ],
  "internalMemory": "128 GB"
},
{
  "productID": 2,
  "screenSize": 6.5,
  "price": 1099.0,
  "model": "iPhone XS Max",
  "brand": 1,
  "commentAndRatingList": [
    {
      "commentAndRatingID": 8,
      "rating": 2,
      "customerComment": "Meh",
      "product": 2
    },
    {
      "commentAndRatingID": 9,
      "rating": 4,
      "customerComment": "Nice",
      "product": 2
    }
  ],
  "additionalFeatureList": [],
  "internalMemory": "256 GB"
},
{
  "productID": 3,
  "screenSize": 6.2,
```

```
      "price": 1249.99,
      "model": "Galaxy S21",
      "brand": 3,
      "commentAndRatingList": [],
      "additionalFeatureList": [],
      "internalMemory": "128 GB"
   },
   {
      "productID": 4,
      "screenSize": 5.0,
      "price": 199.99,
      "model": "iPhone 5",
      "brand": 1,
      "commentAndRatingList": [],
      "additionalFeatureList": [],
      "internalMemory": "32 GB"
   },
   5,
   {
      "productID": 6,
      "screenSize": 6.0,
      "price": 449.99,
      "model": "Galaxy S4",
      "brand": 3,
      "commentAndRatingList": [],
      "additionalFeatureList": [],
      "internalMemory": "128 GB"
   }
]
```

2. Get all computers along with their details

HTTP Request Type	**Get**
URL	**/getComputers**
Body	

Response	

Response:

```
[
   {
      "productID": 7,
      "screenSize": 17.3,
      "price": 999.99,
      "model": "GL 702VMK",
      "brand": {
         "brandID": 2,
         "brandName": "Asus"
      },
      "commentAndRatingList": [
         {
            "commentAndRatingID": 1,
            "rating": 5,
            "customerComment": "Very nice computer.",
            "product": 7
         },
         {
            "commentAndRatingID": 2,
            "rating": 3,
            "customerComment": "It was getting hot.",
            "product": 7
         },
         {
            "commentAndRatingID": 3,
            "rating": 4,
            "customerComment": "Moderate.",
            "product": 7
         },
         {
            "commentAndRatingID": 4,
            "rating": 2,
            "customerComment": "Bad.",
            "product": 7
         }
      ],
      "additionalFeatureList": [
         {
            "additionalFeatureID": 3,
            "additionalFeature": "Face recognition",
            "productList": [
               7
            ]
         }
      ],
      "screenResolution": "1920x1080",
      "storageCapacity": "1 TB",
      "computerMemory": "16 GB",
      "processor": {
         "processorID": 1,
         "modelName": "Intel i7 7700 HQ",
         "clockFrequency": 2.7
      }
```

}]

3. Get a specific computer with its identifier

HTTP Request Type	**Get**
URL	**/getComputer/{productID}**
Body	
Response	

Response:

```
{
    "productID": 7,
    "screenSize": 17.3,
    "price": 999.99,
    "model": "GL 702VMK",
    "brand": {
        "brandID": 2,
        "brandName": "Asus"
    },
    "commentAndRatingList": [
        {
            "commentAndRatingID": 1,
            "rating": 5,
            "customerComment": "Very nice computer.",
            "product": 7
        },
        {
            "commentAndRatingID": 2,
            "rating": 3,
            "customerComment": "It was getting hot.",
            "product": 7
        },
        {
            "commentAndRatingID": 3,
            "rating": 4,
```

```
      "customerComment": "Moderate.",

      "product": 7

    },

    {

      "commentAndRatingID": 4,

      "rating": 2,

      "customerComment": "Bad.",

      "product": 7

    }

  ],

  "additionalFeatureList": [

    {

      "additionalFeatureID": 3,

      "additionalFeature": "Face recognition",

      "productList": [

        7

      ]

    }

  ],

  "screenResolution": "1920x1080",

  "storageCapacity": "1 TB",

  "computerMemory": "16 GB",

  "processor": {

    "processorID": 1,

    "modelName": "Intel i7 7700 HQ",

    "clockFrequency": 2.7

  }

}
```

4. Get a specific phone with its identifier

HTTP Request Type	**Get**
URL	**/getPhone/{productID}**
Body	

Response	

Response:

```json
{
    "productID": 5,
    "screenSize": 5.5,
    "price": 249.99,
    "model": "Galaxy S3",
    "brand": {
        "brandID": 3,
        "brandName": "Samsung"
    },
    "commentAndRatingList": [
        {
            "commentAndRatingID": 10,
            "rating": 5,
            "customerComment": "Cheap and fast",
            "product": 5
        }
    ],
    "additionalFeatureList": [
        {
            "additionalFeatureID": 1,
            "additionalFeature": "Long battery life"
        },
        {
            "additionalFeatureID": 2,
            "additionalFeature": "Fingerprint"
        }
    ],
    "internalMemory": "64 GB"
}
```

5. Get all phones from a particular brand along with their details.

HTTP Request Type	**Get**
URL	**/getPhones/{brandName}**
Body	
Response	

Response: When we send Apple as a brand name, the following response is given to us.

```
[
  {
    "productID": 1,
    "screenSize": 6.7,
    "price": 1099.0,
    "model": "iPhone 12 Pro Max",
    "brand": {
      "brandID": 1,
      "brandName": "Apple"
    },
    "commentAndRatingList": [
      {
        "commentAndRatingID": 5,
        "rating": 5,
        "customerComment": "It was cool",
        "product": 1
      },
      {
        "commentAndRatingID": 6,
        "rating": 1,
        "customerComment": "Very expensive.",
        "product": 1
      },
      {
```

```json
            "commentAndRatingID": 7,

            "rating": 3,

            "customerComment": "It is good but expensive",

            "product": 1

          }

        ],

        "additionalFeatureList": [

          {

            "additionalFeatureID": 1,

            "additionalFeature": "Long battery life"

          }

        ],

        "internalMemory": "128 GB"

      },

      {

        "productID": 2,

        "screenSize": 6.5,

        "price": 1099.0,

        "model": "iPhone XS Max",

        "brand": 1,

        "commentAndRatingList": [

          {

            "commentAndRatingID": 8,

            "rating": 2,

            "customerComment": "Meh",

            "product": 2

          },

          {

            "commentAndRatingID": 9,

            "rating": 4,

            "customerComment": "Nice",

            "product": 2

          }

        ],
```

```
      "additionalFeatureList": [],

      "internalMemory": "256 GB"

  },

  {

      "productID": 4,

      "screenSize": 5.0,

      "price": 199.99,

      "model": "iPhone 5",

      "brand": 1,

      "commentAndRatingList": [],

      "additionalFeatureList": [],

      "internalMemory": "32 GB"

  }

]
```

6. Get all computers from a particular brand along with their details.

HTTP Request Type	**Get**
URL	**/getComputers/{brandName}**
Body	
Response	

Response: When we send Asus as a brand name, the following response is given to us.

```
[

  {

      "productID": 7,

      "screenSize": 17.3,

      "price": 999.99,

      "model": "GL 702VMK",

      "brand": {

          "brandID": 2,

          "brandName": "Asus"

      },
```

```json
    "commentAndRatingList": [
        {
            "commentAndRatingID": 1,
            "rating": 5,
            "customerComment": "Very nice computer.",
            "product": 7
        },
        {
            "commentAndRatingID": 2,
            "rating": 3,
            "customerComment": "It was getting hot.",
            "product": 7
        },
        {
            "commentAndRatingID": 3,
            "rating": 4,
            "customerComment": "Moderate.",
            "product": 7
        },
        {
            "commentAndRatingID": 4,
            "rating": 2,
            "customerComment": "Bad.",
            "product": 7
        }
    ],
    "additionalFeatureList": [
        {
            "additionalFeatureID": 3,
            "additionalFeature": "Face recognition"
        }
    ],
    "screenResolution": "1920x1080",
    "storageCapacity": "1 TB",
```

        "computerMemory": "16 GB",

        "processor": {

            "processorID": 1,

            "modelName": "Intel i7 7700 HQ",

            "clockFrequency": 2.7

        }

    },

    {

        "productID": 14,

        "screenSize": 17.3,

        "price": 1999.99,

        "model": "GL 702VMK",

        "brand": 2,

        "commentAndRatingList": [],

        "additionalFeatureList": [],

        "screenResolution": "1920x1080",

        "storageCapacity": "1 TB",

        "computerMemory": "32 GB",

        "processor": 1

    },

    {

        "productID": 16,

        "screenSize": 17.3,

        "price": 1999.99,

        "model": "GL 702VMK",

        "brand": 2,

        "commentAndRatingList": [],

        "additionalFeatureList": [],

        "screenResolution": "1920x1080",

        "storageCapacity": "1 TB",

        "computerMemory": "32 GB",

        "processor": 1

    },

    {

```
      "productID": 17,

      "screenSize": 17.3,

      "price": 1999.99,

      "model": "GL 702VMK",

      "brand": 2,

      "commentAndRatingList": [],

      "additionalFeatureList": [],

      "screenResolution": "1920x1080",

      "storageCapacity": "1 TB",

      "computerMemory": "32 GB",

      "processor": 1
    }
  ]
```

7. Get all computers based on the search criteria.

- ### Get all computers between min and max price.

HTTP Request Type	**Get**
URL	**/getComputerForSearch/{priceMin}/{priceMax}**
Body	
Response	

Response: When we send min price as 500 and maxpriceas1500, getComputerForSearch?priceMin=500&priceMax=1500 as a URL, we get the following response,

```
[
{

    "productID": 7,

    "screenSize": 17.3,

    "price": 999.99,

    "model": "GL 702VMK",

    "brand": {

      "brandID": 2,
```

```json
        "brandName": "Asus"
    },
    "commentAndRatingList": [
        {
            "commentAndRatingID": 1,
            "rating": 5,
            "customerComment": "Very nice computer.",
            "product": 7
        },
        {
            "commentAndRatingID": 2,
            "rating": 3,
            "customerComment": "It was getting hot.",
            "product": 7
        },
        {
            "commentAndRatingID": 3,
            "rating": 4,
            "customerComment": "Moderate.",
            "product": 7
        },
        {
            "commentAndRatingID": 4,
            "rating": 2,
            "customerComment": "Bad.",
            "product": 7
        }
    ],
    "additionalFeatureList": [
        {
            "additionalFeatureID": 3,
            "additionalFeature": "Face recognition"
        }
    ],
```

```
    "screenResolution": "1920x1080",

    "storageCapacity": "1 TB",

    "computerMemory": "16 GB",

    "processor": {

        "processorID": 1,

        "modelName": "Intel i7 7700 HQ",

        "clockFrequency": 2.7

    }

  }

]
```

- **Get all computers giving just max price,**

HTTP Request Type	**Get**
URL	**/getComputerForSearch/{price}**
Body	
Response	

Response: When we send price as 1500, it gets all the computers that are lower than the price

```
[

  {

    "productID": 7,

    "screenSize": 17.3,

    "price": 999.99,

    "model": "GL 702VMK",

    "brand": {

        "brandID": 2,

        "brandName": "Asus"

    },

    "commentAndRatingList": [

        {

            "commentAndRatingID": 1,

            "rating": 5,
```

          "customerComment": "Very nice computer.",

          "product": 7

      },

      {

          "commentAndRatingID": 2,

          "rating": 3,

          "customerComment": "It was getting hot.",

          "product": 7

      },

      {

          "commentAndRatingID": 3,

          "rating": 4,

          "customerComment": "Moderate.",

          "product": 7

      },

      {

          "commentAndRatingID": 4,

          "rating": 2,

          "customerComment": "Bad.",

          "product": 7

      }

  ],

  "additionalFeatureList": [

      {

          "additionalFeatureID": 3,

          "additionalFeature": "Face recognition"

      }

  ],

  "screenResolution": "1920x1080",

  "storageCapacity": "1 TB",

  "computerMemory": "16 GB",

  "processor": {

      "processorID": 1,

      "modelName": "Intel i7 7700 HQ",

```
      "clockFrequency": 2.7
    }
  }
]
```

- **Get all computers with price is lower than 1500 and screen size is 17.3.**

• HTTP Request Type	**Get**
URL	**/getComputerForSearch/{price}/{screenSize}**
Body	
Response	

Response: When we send /getComputerForSearch?price=1500&screenSize=17.3 as URL, we get the following response.

```
[
  {
    "productID": 7,
    "screenSize": 17.3,
    "price": 999.99,
    "model": "GL 702VMK",
    "brand": {
      "brandID": 2,
      "brandName": "Asus"
    },
    "commentAndRatingList": [
      {
        "commentAndRatingID": 1,
        "rating": 5,
        "customerComment": "Very nice computer.",
        "product": 7
      },
      {
```

          "commentAndRatingID": 2,

          "rating": 3,

          "customerComment": "It was getting hot.",

          "product": 7

        },

        {

          "commentAndRatingID": 3,

          "rating": 4,

          "customerComment": "Moderate.",

          "product": 7

        },

        {

          "commentAndRatingID": 4,

          "rating": 2,

          "customerComment": "Bad.",

          "product": 7

        }

      ],

      "additionalFeatureList": [

        {

          "additionalFeatureID": 3,

          "additionalFeature": "Face recognition"

        }

      ],

      "screenResolution": "1920x1080",

      "storageCapacity": "1 TB",

      "computerMemory": "16 GB",

      "processor": {

        "processorID": 1,

        "modelName": "Intel i7 7700 HQ",

        "clockFrequency": 2.7

      }

    }

  ]

- **When we add multiple path variables like brandName/model**

• HTTP Request Type	**Get**
URL	**/getComputerForSearch/{brandName}/{model}**
Body	
Response	

Response: When we send brandName as Asus and model as GL 702VMK, we get the following response,

```
[
  {
    "productID": 7,
    "screenSize": 17.3,
    "price": 999.99,
    "model": "GL 702VMK",
    "brand": {
      "brandID": 2,
      "brandName": "Asus"
    },
    "commentAndRatingList": [
      {
        "commentAndRatingID": 1,
        "rating": 5,
        "customerComment": "Very nice computer.",
        "product": 7
      },
      {
        "commentAndRatingID": 2,
        "rating": 3,
        "customerComment": "It was getting hot.",
        "product": 7
      },
      {
        "commentAndRatingID": 3,
```

      "rating": 4,

      "customerComment": "Moderate.",

      "product": 7

    },

    {

      "commentAndRatingID": 4,

      "rating": 2,

      "customerComment": "Bad.",

      "product": 7

    }

  ],

  "additionalFeatureList": [

    {

      "additionalFeatureID": 3,

      "additionalFeature": "Face recognition"

    }

  ],

  "screenResolution": "1920x1080",

  "storageCapacity": "1 TB",

  "computerMemory": "16 GB",

  "processor": {

    "processorID": 1,

    "modelName": "Intel i7 7700 HQ",

    "clockFrequency": 2.7

  }

},

{

  "productID": 14,

  "screenSize": 17.3,

  "price": 1999.99,

  "model": "GL 702VMK",

  "brand": 2,

  "commentAndRatingList": [],

  "additionalFeatureList": [],

  "screenResolution": "1920x1080",

  "storageCapacity": "1 TB",

```
      "computerMemory": "32 GB",

      "processor": 1

   },

   {

      "productID": 16,

      "screenSize": 17.3,

      "price": 1999.99,

      "model": "GL 702VMK",

      "brand": 2,

      "commentAndRatingList": [],

      "additionalFeatureList": [],

      "screenResolution": "1920x1080",

      "storageCapacity": "1 TB",

      "computerMemory": "32 GB",

      "processor": 1

   },

   {

      "productID": 17,

      "screenSize": 17.3,

      "price": 1999.99,

      "model": "GL 702VMK",

      "brand": 2,

      "commentAndRatingList": [],

      "additionalFeatureList": [],

      "screenResolution": "1920x1080",

      "storageCapacity": "1 TB",

      "computerMemory": "32 GB",

      "processor": 1

   }

]
```

- **If we add more multiple path variables, such as, getting all the computers which are higher average rating 3, has screen resolution 1920x1080 and computer memory between 16 GB and 30 GB.**

HTTP Request Type	**Get**
URL	**/getComputerForSearch?rating=3&screenResolution=1920x1080&computerMemoryMin=16 GB&computerMemoryMax=30 GB**
Body	
Response	

Response:

[{

    "productID": 7,

    "screenSize": 17.3,

    "price": 999.99,

    "model": "GL 702VMK",

    "brand": {

      "brandID": 2,

      "brandName": "Asus"

    },

    "commentAndRatingList": [

      {

        "commentAndRatingID": 1,

        "rating": 5,

        "customerComment": "Very nice computer.",

        "product": 7

      },

      {

        "commentAndRatingID": 2,

        "rating": 3,

        "customerComment": "It was getting hot.",

        "product": 7

      },

      {

        "commentAndRatingID": 3,

        "rating": 4,

        "customerComment": "Moderate.",

        "product": 7

    },
    {
        "commentAndRatingID": 4,

        "rating": 2,

        "customerComment": "Bad.",

        "product": 7

    }
],

"additionalFeatureList": [

    {

        "additionalFeatureID": 3,

        "additionalFeature": "Face recognition"

    }
],

"screenResolution": "1920x1080",

"storageCapacity": "1 TB",

"computerMemory": "16 GB",

"processor": {

    "processorID": 1,

    "modelName": "Intel i7 7700 HQ",

    "clockFrequency": 2.7

}}]

- **If we add another example of multiple path variables, such as storage capacity, comment, additional feature, clock frequency.**

HTTP Request Type	**Get**
URL	**/getComputerForSearch?clockFrequency=2.7&additionalFeature=Face recognition&customerComment=moderate&storageCapacity=1 TB**
Body	
Response	

Response:

```
[
  {
    "productID": 7,
    "screenSize": 17.3,
    "price": 999.99,
    "model": "GL 702VMK",
    "brand": {
      "brandID": 2,
      "brandName": "Asus"
    },
    "commentAndRatingList": [
      {
        "commentAndRatingID": 1,
        "rating": 5,
        "customerComment": "Very nice computer.",
        "product": 7
      },
      {
        "commentAndRatingID": 2,
        "rating": 3,
        "customerComment": "It was getting hot.",
        "product": 7
      },
      {
        "commentAndRatingID": 3,
        "rating": 4,
        "customerComment": "Moderate.",
        "product": 7
      },
      {
        "commentAndRatingID": 4,
        "rating": 2,
        "customerComment": "Bad.",
        "product": 7
```

```
          }

        ],

        "additionalFeatureList": [

          {

            "additionalFeatureID": 3,

            "additionalFeature": "Face recognition"

          }

        ],

        "screenResolution": "1920x1080",

        "storageCapacity": "1 TB",

        "computerMemory": "16 GB",

        "processor": {

          "processorID": 1,

          "modelName": "Intel i7 7700 HQ",

          "clockFrequency": 2.7

        }

      }

    ]
```

8. Get all phones based on search criteria.

- ### Get all computers between min and max price.

HTTP Request Type	**Get**
URL	**/getPhoneForSearch/{priceMin}/{priceMax}**
Body	
Response	

Response: When we send min price as 500 and max price as 2000, we get the following response,

```
    [

      {

        "productID": 1,

        "screenSize": 6.7,
```

```json
      "price": 1099.0,
      "model": "iPhone 12 Pro Max",
      "brand": {
        "brandID": 1,
        "brandName": "Apple"
      },
      "commentAndRatingList": [
        {
          "commentAndRatingID": 5,
          "rating": 5,
          "customerComment": "It was cool",
          "product": 1
        },
        {
          "commentAndRatingID": 6,
          "rating": 1,
          "customerComment": "Very expensive.",
          "product": 1
        },
        {
          "commentAndRatingID": 7,
          "rating": 3,
          "customerComment": "It is good but expensive",
          "product": 1
        }
      ],
      "additionalFeatureList": [
        {
          "additionalFeatureID": 1,
          "additionalFeature": "Long battery life"
        }
      ],
      "internalMemory": "128 GB"
    },
    {
      "productID": 2,
```

```json
            "screenSize": 6.5,
            "price": 1099.0,
            "model": "iPhone XS Max",
            "brand": 1,
            "commentAndRatingList": [
                {
                    "commentAndRatingID": 8,
                    "rating": 2,
                    "customerComment": "Meh",
                    "product": 2
                },
                {
                    "commentAndRatingID": 9,
                    "rating": 4,
                    "customerComment": "Nice",
                    "product": 2
                }
            ],
            "additionalFeatureList": [],
            "internalMemory": "256 GB"
        },
        {
            "productID": 3,
            "screenSize": 6.2,
            "price": 1249.99,
            "model": "Galaxy S21",
            "brand": {
                "brandID": 3,
                "brandName": "Samsung"
            },
            "commentAndRatingList": [],
            "additionalFeatureList": [],
            "internalMemory": "128 GB"
        }
    ]
```

- **Get all phones giving just max price,**

HTTP Request Type	Get
URL	**/getPhonesForSearch/{price}**
Body	
Response	

Response: If we give max price as 1000, we get the phones that have lower price than 1000.

```
[
  {
    "productID": 4,
    "screenSize": 5.0,
    "price": 199.99,
    "model": "iPhone 5",
    "brand": {
      "brandID": 1,
      "brandName": "Apple"
    },
    "commentAndRatingList": [],
    "additionalFeatureList": [],
    "internalMemory": "32 GB"
  },
  {
    "productID": 5,
    "screenSize": 5.5,
    "price": 249.99,
    "model": "Galaxy S3",
    "brand": {
      "brandID": 3,
      "brandName": "Samsung"
    },
    "commentAndRatingList": [
      {
```

```json
          "commentAndRatingID": 10,

          "rating": 5,

          "customerComment": "Cheap and fast",

          "product": 5

        }

    ],

    "additionalFeatureList": [

      {

        "additionalFeatureID": 1,

        "additionalFeature": "Long battery life"

      },

      {

        "additionalFeatureID": 2,

        "additionalFeature": "Fingerprint"

      }

    ],

    "internalMemory": "64 GB"

  },

  {

    "productID": 6,

    "screenSize": 6.0,

    "price": 449.99,

    "model": "Galaxy S4",

    "brand": 3,

    "commentAndRatingList": [],

    "additionalFeatureList": [],

    "internalMemory": "128 GB"

  }

]
```

- **Get all phones with price is lower than 1500 and screen size is 17.3.**

HTTP Request Type	**Get**
URL	**/getPhonesForSearch/{price}/{screenSize}**
Body	
Response	

Response:

```
[
  {
    "productID": 1,
    "screenSize": 6.7,
    "price": 1099.0,
    "model": "iPhone 12 Pro Max",
    "brand": {
      "brandID": 1,
      "brandName": "Apple"
    },
    "commentAndRatingList": [
      {
        "commentAndRatingID": 5,
        "rating": 5,
        "customerComment": "It was cool",
        "product": 1
      },
      {
        "commentAndRatingID": 6,
        "rating": 1,
        "customerComment": "Very expensive.",
        "product": 1
      },
      {
```

```
          "commentAndRatingID": 7,

          "rating": 3,

          "customerComment": "It is good but expensive",

          "product": 1

        }

      ],

      "additionalFeatureList": [

        {

          "additionalFeatureID": 1,

          "additionalFeature": "Long battery life"

        }

      ],

      "internalMemory": "128 GB"

    }

]
```

- **Get all phones by giving multiple path variables such as brand name, model, and internal memory.**

HTTP Request Type	**Get**
URL	**/getPhonesForSearch/{brandName}/{model}/{internalMemory}**
Body	
Response	

Response: This is the response we get when we send brand name as Apple, model as iPhone 12 Pro Max and internal memory as 128 GB.

```
[

  {

    "productID": 1,

    "screenSize": 6.7,

    "price": 1099.0,

    "model": "iPhone 12 Pro Max",

    "brand": {

      "brandID": 1,
```

```json
          "brandName": "Apple"
        },
        "commentAndRatingList": [
          {
            "commentAndRatingID": 5,
            "rating": 5,
            "customerComment": "It was cool",
            "product": 1
          },
          {
            "commentAndRatingID": 6,
            "rating": 1,
            "customerComment": "Very expensive.",
            "product": 1
          },
          {
            "commentAndRatingID": 7,
            "rating": 3,
            "customerComment": "It is good but expensive",
            "product": 1
          }
        ],
        "additionalFeatureList": [
          {
            "additionalFeatureID": 1,
            "additionalFeature": "Long battery life"
          }
        ],
        "internalMemory": "128 GB"
    }
]
```

- **If we add more multiple path variables, such as, getting all the phones which are higher average rating 3, has customer comment "cheap" and internal memory between 32 GB and 64 GB.**

HTTP Request Type	**Get**
URL	**/getComputerForSearch?rating=3&screenResolution=1920x1080&computerMemoryMin=16 GB&computerMemoryMax=30 GB**
Body	
Response	

Response:

```
[
  {
    "productID": 5,
    "screenSize": 5.5,
    "price": 249.99,
    "model": "Galaxy S3",
    "brand": {
      "brandID": 3,
      "brandName": "Samsung"
    },
    "commentAndRatingList": [
      {
        "commentAndRatingID": 10,
        "rating": 5,
        "customerComment": "Cheap and fast",
        "product": 5
      }
    ],
    "additionalFeatureList": [
      {
        "additionalFeatureID": 1,
        "additionalFeature": "Long battery life"
```

```
        },
        {
            "additionalFeatureID": 2,

            "additionalFeature": "Fingerprint"

        }
      ],
      "internalMemory": "64 GB"

    }
]
```

- **If we add more multiple path variables, such as, getting all the phones which has brand name Samsung, and has additional features of Long battery life and Fingerprint**

HTTP Request Type	**Get**
URL	**/getComputerForSearch/{brandName}/{additionalFeature}/{additionalFeature}**
Body	
Response	

Response:

```
[
  {
      "productID": 5,

      "screenSize": 5.5,

      "price": 249.99,

      "model": "Galaxy S3",

      "brand": {

        "brandID": 3,

        "brandName": "Samsung"

      },
      "commentAndRatingList": [

        {

          "commentAndRatingID": 10,

          "rating": 5,

          "customerComment": "Cheap and fast",
```

```json
        "product": 5
      }
    ],
    "additionalFeatureList": [
      {
        "additionalFeatureID": 1,
        "additionalFeature": "Long battery life"
      },
      {
        "additionalFeatureID": 2,
        "additionalFeature": "Fingerprint"
      }
    ],
    "internalMemory": "64 GB"
  }
]
```