iRobotsTheBomb Inc.

Your agile team is to create an on-line pamphlet for iRobotsTheBomb Inc. The company sells robots that can detect and dispose of explosive devices.

Your agile team must use inheritance, composition, exception handlers, a virtual function, and at least two overloaded operators. At least one class should use templates. At least one class must contain a pointer (a copy constructor needs to be written and tested). Highlight the above.

Design a very readable, easy to use interface to demonstrate your agile team’s program. Contingency handling should include addressing invalid input. Please let me know who your partner will be by October 25th (two points will be deducted from your score if you do not meet this deadline). All projects are due by December 6th. No late projects will be accepted. Your team must demonstrate your project before it will be graded. Each teammate must identify their accomplishments on the project.

Submit a UML class diagram, at least three use cases, and a state diagram with your project.

Write at least 10 agile stories (including description, tasks, test scenarios, and story points) before any software is developed. The team must follow the Scrum process (the Scrum master must document all meetings and the product owner must document the backlog).

Teams must use QT, DOXYGEN, SQLite and GIT. Only team members should have access to their repository.

The assignment will be graded using the following scale:

|  |  |
| --- | --- |
|  | Value |
| Checkpoint 1 | 5 |
| Checkpoint 2 | 5 |
| Meet requirements | 15 |
| Coding Style | 2 |
| Use of SQLite | 1 |
| User interface | 2 |
| Adherence to Scrum | 3 |
| UML | 2 |
| DOXYGEN | 1 |
| Contingency handling | 2 |
| Test Plan | 2 |
| Total | 40 |
| Continuous Integration (extra credit) | 1 |
| Total with extra credit | 41 |

Schedule:

First checkpoint – November 6th – 5 points

Second checkpoint – November 20th – 5 points

Final checkpoint – December 6th – 30 points

The iRobotsTheBomb on-line pamphlet must:

1. **Provide a help option to explain how to operate your program**
2. **Contain a sales pitch that includes key selling points – keeping the target market in mind.**
3. **Identify a list of physical environments that are supported**
4. **Provide a one paragraph – concept of operations (what does it do and how it does it)**
5. **Provide an least three options along with a corresponding price for each option**
6. **Provide a logistics or maintenance plan with pricing**
7. **Provide a guarantee policy**
8. **Provide satisfied customer testimonials (solicit for additional testimonials). The testimonials should be persistent between executions.**
9. **Provide “contact us” methods**
10. **Your program should read from a customer file that keeps track of which companies have already received the pamphlet. There is a corresponding customer rating (very interested, somewhat interested, not interested, never call again). Some customers are considered key while other customers are considered “nice to have”. Customer names must be unique.**
11. **Your program should be able to update the customer list (change customer rating, the “key” field, address, etc.) – administrator only**
12. **Your program should be able to add and delete customers. – administrator only**
13. **A perspective customer can request a copy of the pamphlet.**
14. **The customer list should be persistent between executions.**
15. **A customer should have the ability to order one or more iRobot devices.**
16. **Customers should not have the ability to view/print the customer list – administrator only function**
17. **After a pamphlet is sent to a perspective customer, the customer list should reflect the fact that the pamphlet was sent.**
18. **Produce a customer listing sorted by customer name (at any time) – (administrator only)**
19. **Produce a customer listing sorted by customer name containing only the “key” customers (at any time). (administrator only)**
20. **Produce a customer listing sorted by customer name and their corresponding products they ordered with the associated costs. (administrator only)**

**Use the following data:**

**FBI**

**1234 Lincoln Ave.**

**Washington D.C. 00234**

**somewhat interested**

**key**

**CIA**

**987 Jefferson Blvd**

**Baltimore, MD 00754**

**not interested**

**key**

**Saddleback College**

**28000 Marguerite Pkwy**

**Mission Viejo, CA 92692**

**somewhat interested**

**nice to have**

**Los Angeles Dodgers**

1000 Elysian Park Avenue

**Los Angeles, CA 9** 0012

**very interested**

**nice to have**

**Los Angeles Angels**

2000 East Gene Autry Way

**Anaheim, CA** 92806

**very interested**

**key**

**Orange County Airport**

**18601 Airport Way**

**Santa Ana, CA 92707**

**very interested**

**key**

**Los Angeles Airport**

**1 World Way**

**Los Angeles, CA 90045**

**very interested**

**key**

**Amazon**

**410 Terry Ave. North**

**Seattle, WA 98109**

**somewhat interested**

**nice to have**

**Cisco**

**170 West Tasman Dr.**

**San Jose, CA 9513**

**very interested**

**key**