ITEC243 – Lecture Session – (29-APR-2020) Inheritance (is-a) Relationship



Private, Protected, Public relationships between the mother and child classes may be formed.

"protected" data members: they are like private data members. Only the sub classes of base class may access them.



| //base class | //sub class | //sub class | //sub class |
|-----------------|-----------------------|-----------------|----------------------------|
| class test{ | class quizA : private | class quizA : | class quizA : public |
| private: | test | protected test | test |
| int x; | { | { | { |
| protected: | private: | private: | private: |
| int y; | int a; | int a; | int a; |
| public: | public: | public: | public: |
| test(); | quizA(); | quizA(); | quizA(); |
| int getx(); | int geta(); | int geta(); | int geta(); |
| int gety(); | void seta(int); | void seta(int); | <pre>void seta(int);</pre> |
| void setx(int); | } | } | } |
| void sety(iny); | | | |
| }; | | | |

How members of the base class appear in the derived (sub) class???

| If is-a relationship is "private" | | |
|-----------------------------------|---|--|
| private | private: private data members of the base class are inaccessible. protected: protected data members of the base class become private members of the derived class. public: public data members of the base class become private members of the derived class. | |
| protected | private: private data members of the base class are inaccessible. protected: protected data members of the base class become protected members of the derived class. public: public data members of the base class become protected members of the derived class. | |
| public | private: private data members of the base class are inaccessible. protected: protected data members of the base class become protected members of the derived class. public: public data members of the base class become public members of the derived class. | |

How about constructor/destructor? Are they accessed by sub-classes???