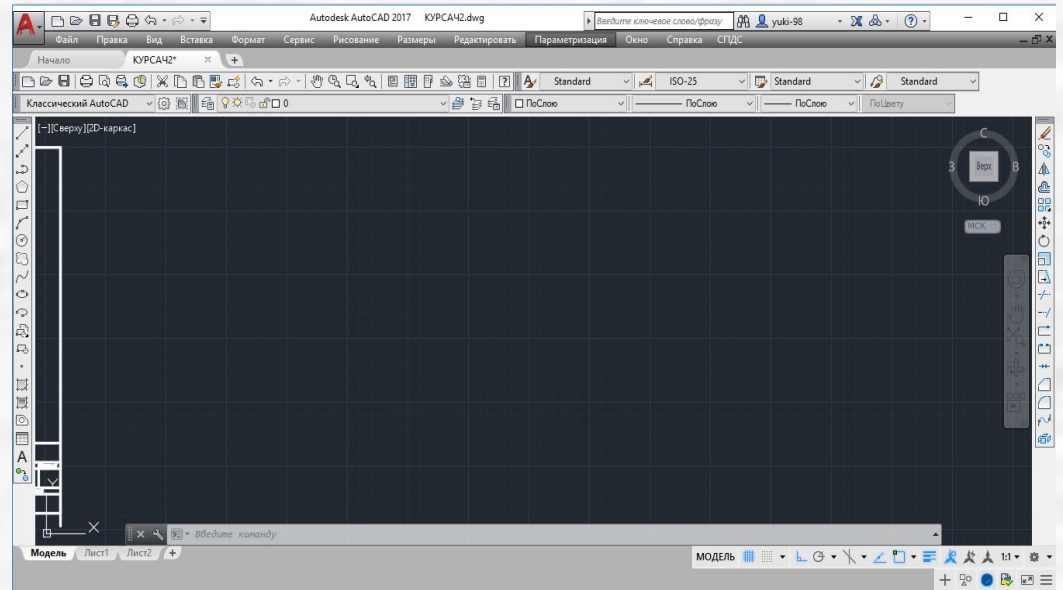# Course project projection in AutoCAD system Computer graphic

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Plan:

1. About AutoCAD
2. Tasks for course project
3. Detachable connection
4. Projection drawing
5. Conclusion

Picture 1. Main window of the program

1. About AutoCAD

AutoCAD.

❑ 2D and 3D computer-aided design and drawing system, developed by Autodesk.

❑ The first version is 1982.

❑ The program is available in 18 languages.

❑ The second most popular after the Compass, but more difficult to learn.

❑ You can easily set the dimensions on the drawing, quickly fix minor errors, to build geometric figures in automatic mode, giving only the sizes of the figures.

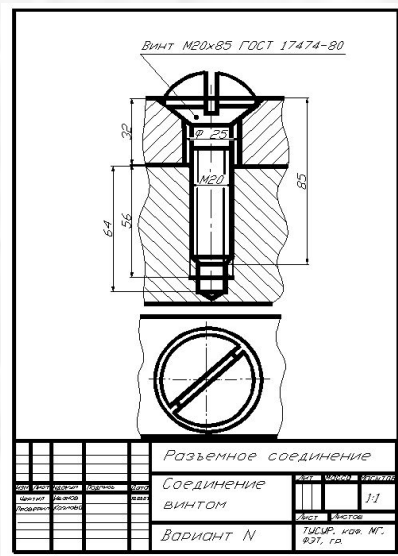❑ Allows you to develop fast and easy 3D parts.

1. About AutoCAD

Features of AutoCAD:

❑ Study of three-dimensional construction can be studied immediately after studying the toolbar and using the primary knowledge of spatial geometry.

❑ The work is based on operations such as simple and kinematic extrusion, rotation, cutting, as well as Boolean operations.

❑ A program with a very large interface and options. This program is ideal for professionals working in design institutes, designers, architects, builders, people who are engaged in creating projects for residential and industrial buildings for various purposes.
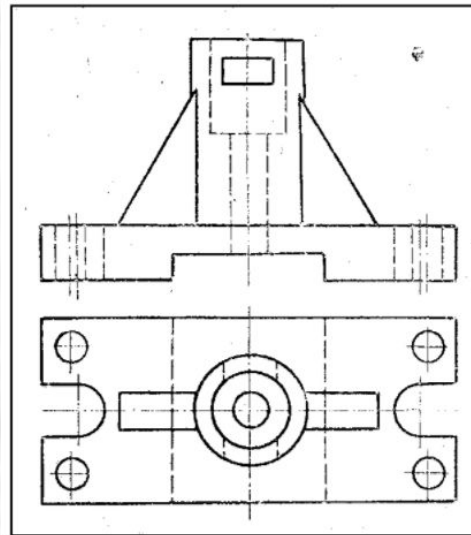
2. Tasks for course project

1) **Detachable connection:** draw a screw according to the variant. (Picture 2)
2) **Projection drawing**: it is proposed in the form of a task containing two kinds of parts. You need to build 3 kinds, size, make a cut. Build 3d model (Picture 3)
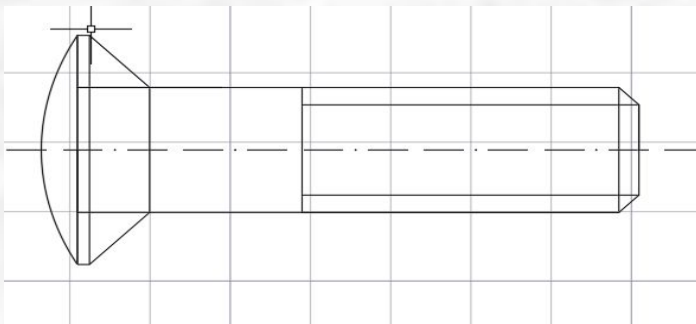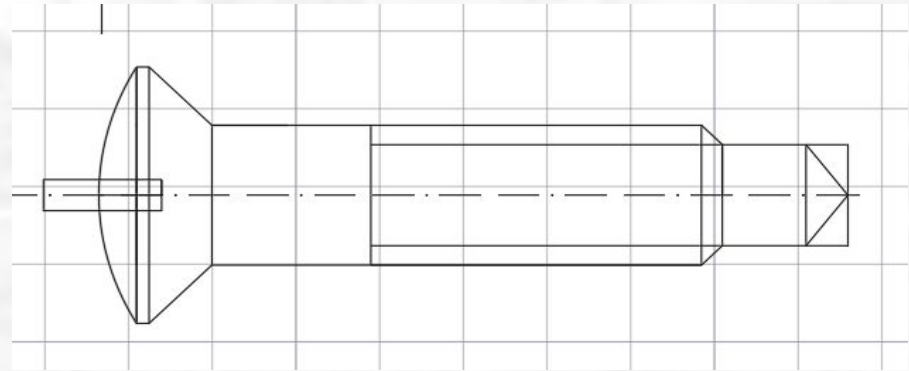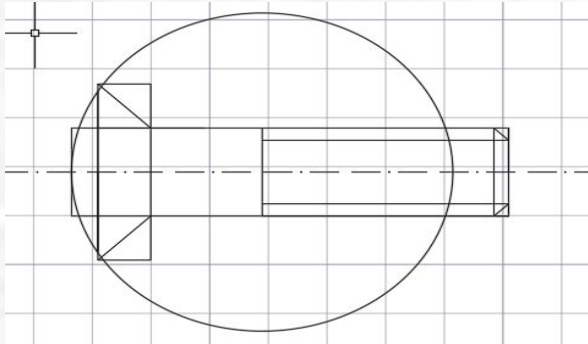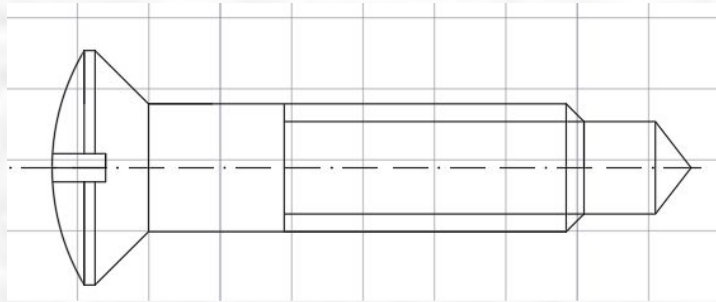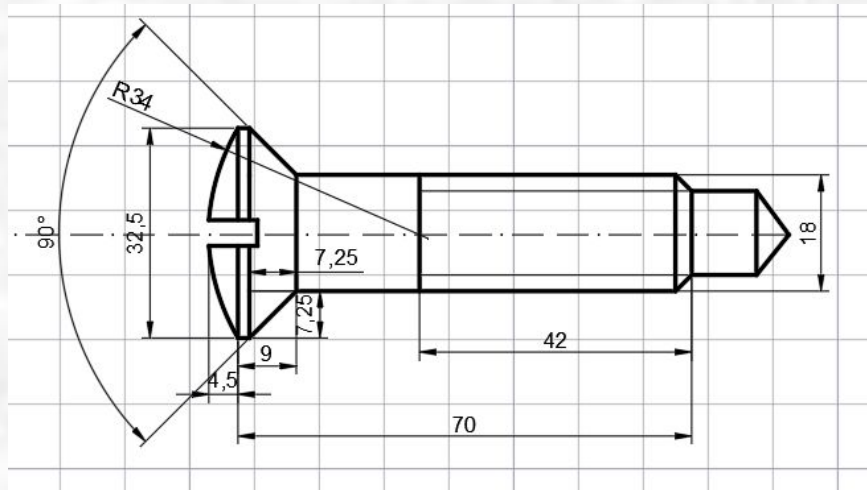
Picture 2

Picture 3

3. Detachable connection

According to the task, a
fixing screw with a
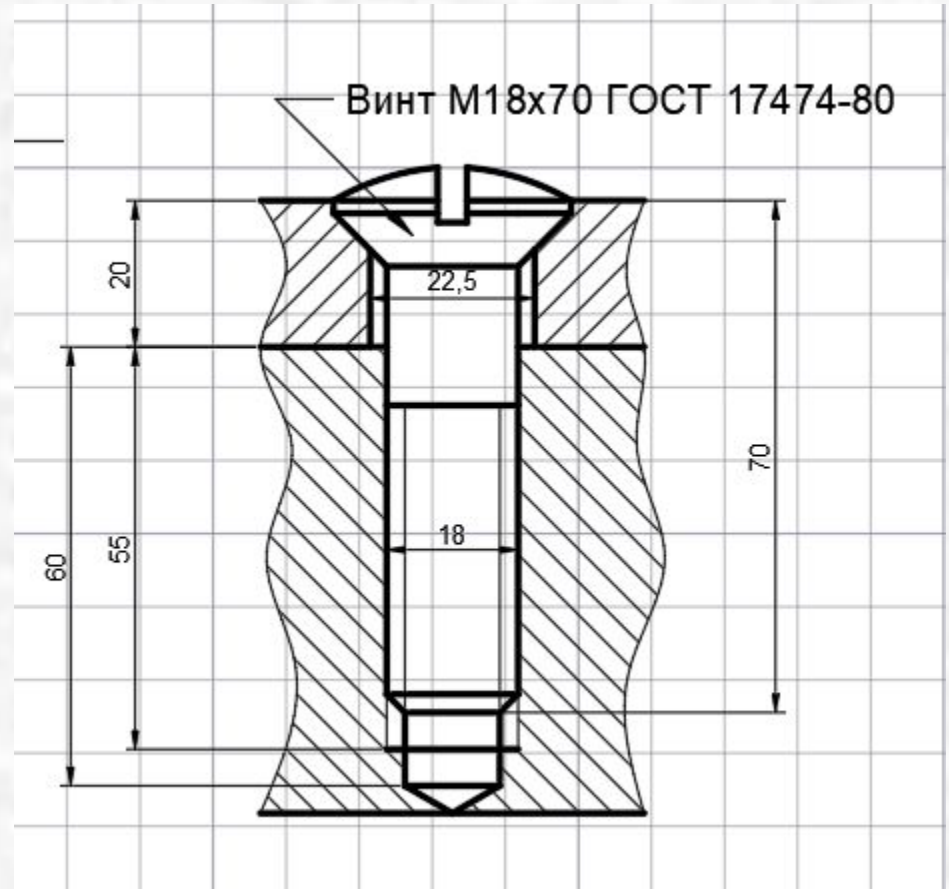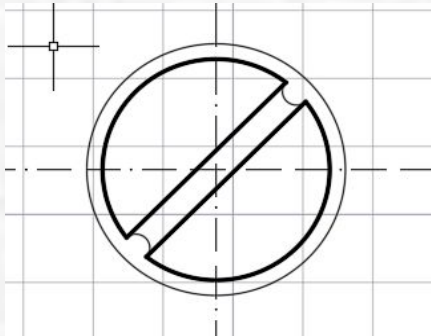half-hollow head
GOST 17474-80

3. Detachable connection

1) We remove all auxiliary lines.
2) Making lines bold.
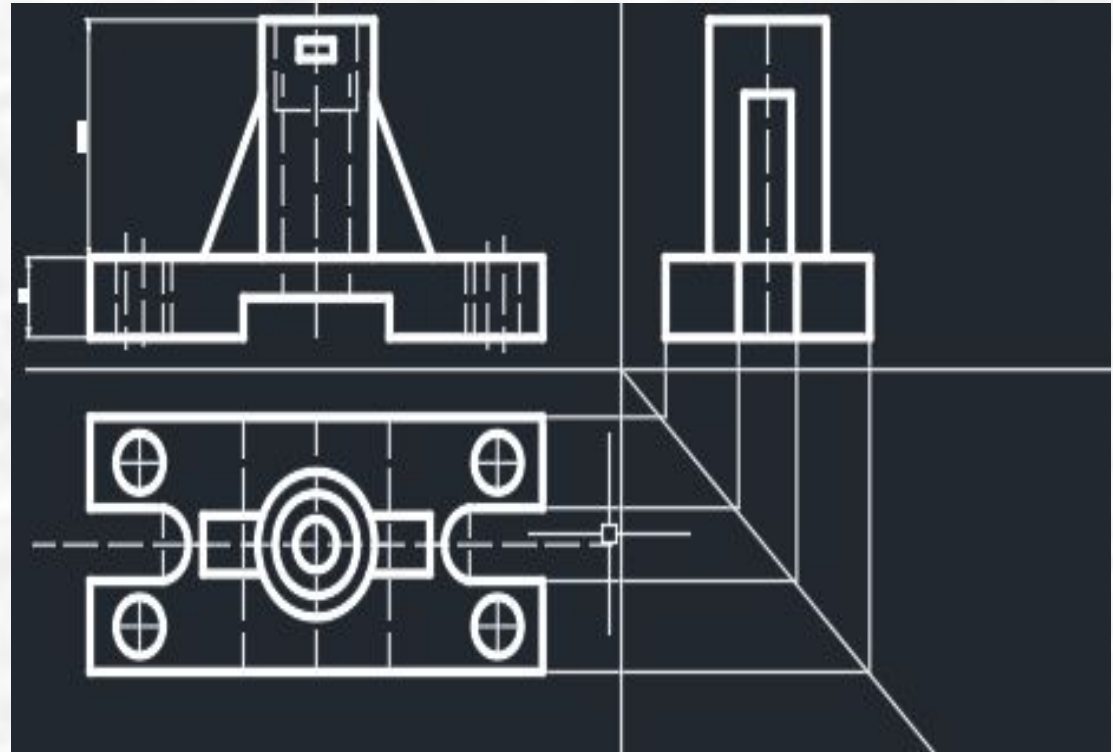3) Check the correctness of all sizes

3. Detachable connection

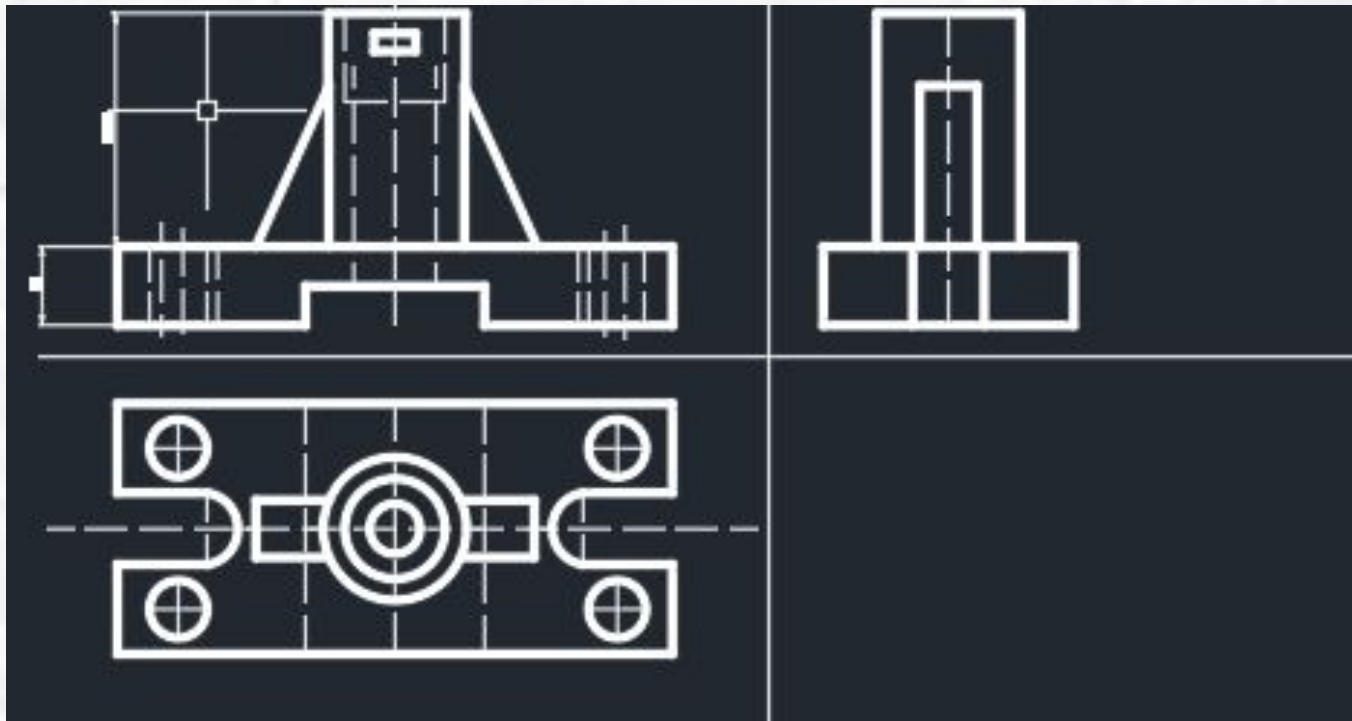Removing all unnecessary dimensions adding the thickness of the connected part 20. Hatching the desired spaces.

Винт М18x70 ГОСТ 17474-80

4. Projection drawing
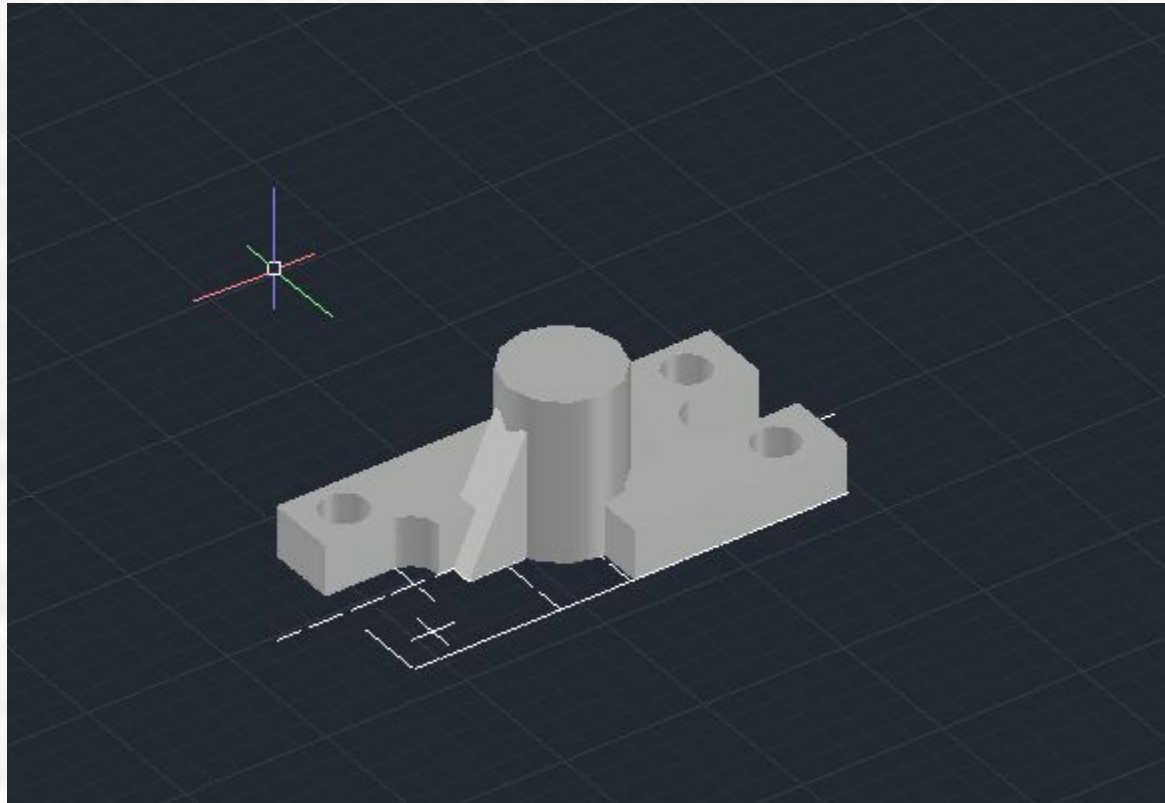
1) 2 types are redrawn.
2) Drawing 3 view left

4. Projection drawing

4. Projection drawing

3D model with a slit

5. Conclusion

During the development of the course project the following types of work were performed:

❑learning the basics necessary to work in the Autocad program;

❑3D model design details;

❑Setting up layers and styles;

❑application of the subtraction method (subtraction of the volume of one object from another);

❑application of the extrusion method (extrusion of an object from 2D to 3D model);

❑drawing dimensions on the object;

❑study of the properties of dimensional lines;

❑Creation of a section of the object in 3D;