```c
static struct attribute *audio_ddac_attrs[] =
{
    &dev_attr_mode.attr,
    &dev_attr_freq.attr,
    &dev_attr_volume.attr,
    &dev_attr_resolution.attr,
    &dev_attr_transfer.attr,
    &dev_attr_playback.attr,
    NULL,
};


static struct attribute_group audio_ddac_dev_attr_group =
{
    .attrs = audio_ddac_attrs,
    .bin_attrs = audio_ddac_bin_attrs,
};

static const struct attribute_group *audio_ddac_attr_groups[] =
{
    &audio_ddac_dev_attr_group,
    NULL,
};

static struct class audio_ddac_class =
{
    .name       = "audio_ddac",
    .owner      = THIS_MODULE,
    .dev_groups = audio_ddac_attr_groups,
};

......

    class_register(&audio_ddac_class);
    audio_device = device_create(&audio_ddac_class, NULL, MKDEV(0, 0), NULL,
 "audio_op"); ①
    if (IS_ERR(audio_device))
    {
        dev_err(&pdev->dev, "%s: failed to create device for audio\n", __fun
c__);
        goto err_handling_0;
    }
```

① create "audio_op" device in `/sys/class/audio_ddac` directory

如果只是 `register` audio_ddac class,那么看到 `/sys/class/audio_ddac` directory是空的！

创建了"audio_op" device后，在该device下才能看到定义的这些attributes!