If you are an old comrade to Programming (Specifically C and C++) you must have heard the term “Pointer” before, but if not, in this module you will be learning about it.

So, what is Pointer?

You have learnt about variable in your earlier module, inheriting the same learning, Pointer is a variable too.

But then, why we are learning it separately not along with the variable? Is it different from the variable we created earlier?

Answer to all those questions is yes. Pointer is a variable but instead of storing the actual value, it stores address in the memory block where the value is getting stored.

Let us Understand the concept with an example:

Assume we have a variable called b. This variable b stores some string value let us say “Hello World”.

But where exactly this “Hello world” will be stored in the memory block? So, to depict that we will make use of another variable whose whole purpose will be to locate the address in the memory for this “Hello World”.

So, what is happening here, we are creating a special variable which is storing, or you may call pointing to the memory address of another variable. And this special variable which we created is called Pointer.

![Diagram

Description automatically generated](data:image/jpeg;base64,/9j/4AAQSkZJRgABAQEAeAB4AAD/4RD4RXhpZgAATU0AKgAAAAgABAE7AAIAAAAPAAAISodpAAQAAAABAAAIWpydAAEAAAAeAAAQ0uocAAcAAAgMAAAAPgAAAAAc6gAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAE1vaGl0IEJoYXJkd2FqAAAABZADAAIAAAAUAAAQqJAEAAIAAAAUAAAQvJKRAAIAAAADOTAAAJKSAAIAAAADOTAAAOocAAcAAAgMAAAInAAAAAAc6gAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAADIwMjE6MDg6MzAgMDg6NDg6MzEAMjAyMTowODozMCAwODo0ODozMQAAAE0AbwBoAGkAdAAgAEIAaABhAHIAZAB3AGEAagAAAP/hCyFodHRwOi8vbnMuYWRvYmUuY29tL3hhcC8xLjAvADw/eHBhY2tldCBiZWdpbj0n77u/JyBpZD0nVzVNME1wQ2VoaUh6cmVTek5UY3prYzlkJz8+DQo8eDp4bXBtZXRhIHhtbG5zOng9ImFkb2JlOm5zOm1ldGEvIj48cmRmOlJERiB4bWxuczpyZGY9Imh0dHA6Ly93d3cudzMub3JnLzE5OTkvMDIvMjItcmRmLXN5bnRheC1ucyMiPjxyZGY6RGVzY3JpcHRpb24gcmRmOmFib3V0PSJ1dWlkOmZhZjViZGQ1LWJhM2QtMTFkYS1hZDMxLWQzM2Q3NTE4MmYxYiIgeG1sbnM6ZGM9Imh0dHA6Ly9wdXJsLm9yZy9kYy9lbGVtZW50cy8xLjEvIi8+PHJkZjpEZXNjcmlwdGlvbiByZGY6YWJvdXQ9InV1aWQ6ZmFmNWJkZDUtYmEzZC0xMWRhLWFkMzEtZDMzZDc1MTgyZjFiIiB4bWxuczp4bXA9Imh0dHA6Ly9ucy5hZG9iZS5jb20veGFwLzEuMC8iPjx4bXA6Q3JlYXRlRGF0ZT4yMDIxLTA4LTMwVDA4OjQ4OjMxLjkwMzwveG1wOkNyZWF0ZURhdGU+PC9yZGY6RGVzY3JpcHRpb24+PHJkZjpEZXNjcmlwdGlvbiByZGY6YWJvdXQ9InV1aWQ6ZmFmNWJkZDUtYmEzZC0xMWRhLWFkMzEtZDMzZDc1MTgyZjFiIiB4bWxuczpkYz0iaHR0cDovL3B1cmwub3JnL2RjL2VsZW1lbnRzLzEuMS8iPjxkYzpjcmVhdG9yPjxyZGY6U2VxIHhtbG5zOnJkZj0iaHR0cDovL3d3dy53My5vcmcvMTk5OS8wMi8yMi1yZGYtc3ludGF4LW5zIyI+PHJkZjpsaT5Nb2hpdCBCaGFyZHdhajwvcmRmOmxpPjwvcmRmOlNlcT4NCgkJCTwvZGM6Y3JlYXRvcj48L3JkZjpEZXNjcmlwdGlvbj48L3JkZjpSREY+PC94OnhtcG1ldGE+DQogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgIDw/eHBhY2tldCBlbmQ9J3cnPz7/2wBDAAcFBQYFBAcGBQYIBwcIChELCgkJChUPEAwRGBUaGRgVGBcbHichGx0lHRcYIi4iJSgpKywrGiAvMy8qMicqKyr/2wBDAQcICAoJChQLCxQqHBgcKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKir/wAARCAHKA/sDASIAAhEBAxEB/8QAHwAAAQUBAQEBAQEAAAAAAAAAAAECAwQFBgcICQoL/8QAtRAAAgEDAwIEAwUFBAQAAAF9AQIDAAQRBRIhMUEGE1FhByJxFDKBkaEII0KxwRVS0fAkM2JyggkKFhcYGRolJicoKSo0NTY3ODk6Q0RFRkdISUpTVFVWV1hZWmNkZWZnaGlqc3R1dnd4eXqDhIWGh4iJipKTlJWWl5iZmqKjpKWmp6ipqrKztLW2t7i5usLDxMXGx8jJytLT1NXW19jZ2uHi4+Tl5ufo6erx8vP09fb3+Pn6/8QAHwEAAwEBAQEBAQEBAQAAAAAAAAECAwQFBgcICQoL/8QAtREAAgECBAQDBAcFBAQAAQJ3AAECAxEEBSExBhJBUQdhcRMiMoEIFEKRobHBCSMzUvAVYnLRChYkNOEl8RcYGRomJygpKjU2Nzg5OkNERUZHSElKU1RVVldYWVpjZGVmZ2hpanN0dXZ3eHl6goOEhYaHiImKkpOUlZaXmJmaoqOkpaanqKmqsrO0tba3uLm6wsPExcbHyMnK0tPU1dbX2Nna4uPk5ebn6Onq8vP09fb3+Pn6/9oADAMBAAIRAxEAPwD6RooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiivDviV4d07xV+0N4b0nWoPtFpJo7s0ZJHIkfnigD3GivD/CKQ+BPjvfeFPD2oTS+Hf7LFzdW0sxkjsZt3QEk7flwcf7XsK2E+NGqapFcaj4V8CX2r6HCzAX32tYXmVTgskRUkjg4yQT9eKAPVJ54baFprmVIYl+88jBVHbqakryvx14z8M+J/gBd+J5NNk1jSH8lmsnnNu+7z0TBZc7SrHPGQcehzWt4u+Itr8P4vDlt/ZV1qMOqeZFH5D/AL1CiAoApHzFiQvUY60Ad9RXnPh74q3N94zt/DfijwxceH7u+iaWwd7pZ0uAoyRkAbWxk456demeQTx747g+Nms2sXhqa6jW0iUaWdXAjjXccTL8hGWHUAZ9zQB7rRXA+JPibNp/iI6B4X8PT+INWhiSa7iFwtvHaq4yoZyD8xHIUDpzVvwh8RI/E8Or293pVxpOsaNj7bp07himVLKVccMpA4OP6UAdnRXl/gr4v3/ji4sJNM8H3K6bN8l3fNdrtgfBJCKVBkAOAW+XnOAcV1nj7xXL4J8G3fiCLTW1JLRkMsCy+WQhYKWB2npnOP1FAHSUVyHjD4hWnhfwHD4ktbb+0vtjwx2Vssvlm4eUjaA2Dj5cnoelUtf8f67Y6gLLw94IvNYkWJZJJZLpbaH5hnajEEuR34AoA7yiuK8OfEq08SeBNV8QQafNb3GkrOt3p87ANHLEu5k3AfTnHfp2rO8E/FO/8b3VlLZeErmDSLiIGXUJLpf3cu3LKE2gsob5d/GeuMUAehQ3ENyhe3ljlUMVLRsGAI6jjvUleW/DnW9H0zwDrepeH/D15DFbahcBtOtZTcSSyB9u5S2OvBweAPpT7f4u6laa9pln4u8GXOh2Wq3AtrS9+2pOPNb7quqqNufYn9DQB3kviPSofE0Ph6W7C6rPbG6jtyjfNEG2lt2NvXtnPtWnXinxB11/D/7Qmg3tvp1xqc7aG8cNrb4DSMZWxljwo4JJPSut8JfE6TW/FUvhnxJoE/h3WVh+0QwSTieO4izjcrhRyPTHr6GgDq9J8R6Vrl1qFtpd2J5tNuWtbtNjKYpR1X5gM9eoyPetOvIvhtqFrpPiT4najqMywWlrrM800jdERRkn8hUknxp1SPTjrreAtQ/4RsASG/8AtaecIv8AnoYccDv97pzQB6zWffa7pum6nYade3SxXeos62sO0lpCq7mPA4AHc4HIHUirFhfW+p6fb31lIJbe4jWWJx/EpGQfyrzfxH4F8S6p8Qdd1y0urdRLopstHkZ2zaykckjGBlucjJ6fSgD0DSNd03XoZ5tIuluooJ3t3dVIXehwwBI+YA8ZGR71oV5zpAvPhd8MdHsLfQLjV9RCrA8FiQEMu0lnZ2wFUkH5iOrDjmpfC/xOutU8X/8ACM+KPDc3h7U5bc3NsDci4jnQHBwwVcEemOx9sgHQXnjzw1p95rNreaosc2hwpPqKeU58hHXcp4X5sjsuTyK2NO1C11bTbfUNOmE9rdRLLDIoIDowyDzz0NeS6n8LNe1a18Qz3c9suoeJNRQX8iOx8uxQ/LFGdvJ2qi5IHVj2APq+k6dDpGk21hbKEit4wiqOgAGMUAXKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigArw74k+HbHxT+0P4c0vVUke2k0d2YRyNGQRI+DlSDXuNRvBFJKkjxqzp91iORQBxlr8MND0Dwpq+m+GrKO2nv7OWHzWySWZCoLMeT171wXw5+KXhzwT8PYdA8TrdWGvaYrQSaYbR2lnYEhdmBht3rn9Oa90qtNp1nPJ5k1tG7/3mXmgD5yutD1HRf2RteGqwNbz3dzFc+Qw5jD3UZAPvjFdt8QQG8Y/C0MMg3c+Qf8ArkteutDG0PlMimPGNuOKa1tC6IrxKVjOUBH3T7UAeX/EgAfGr4Y44/eaj/6JSs3VvEWneC/2jb6/8SyyWVnqOkwx2s5hd1ldWIKjaCd3t/iM+ySQRTFTKisUOVyOhplxaW91j7TCkm3puGcUAfOni7QvDWmfG3Xb74jreQaPq8cM+n6lC0yxBlQKyMYz1z6+g6ZruPh1pfgOGHXr7wELyTdb+XNc3Am2TYVsbDLy2PUccivU5bS3njEc0KOg6BhnFEFpb2ylbeFIweu0YoA86/Z/QL8HNIIXBIfJx1+dq7/V9Mt9a0W90u+Tfb3kDwSr6qykH+dWYoY4FKwoqAnJAHen0AfMfgddV8SeK/D3gPV428rwTcXD3TEfLK6tsh/Jcke1b/jbxZep8UdV0XxL4s1PwnpVrFEdMXToCGuwUBY71Rix3cY/DrmveBawLcG4WJBMRgvjk02eytrog3ECSFehZc4oA8F+Fe7/AIVh8Sy0l3Luur9xJejE7gwAhpB/fIOT7k16P8F0C/CDw+QME2iE8deK7WK1gh3eVEibhhtoxmnRQxwRiOFFRB0VRxQB8/eG9Z1zw/8AA3xXqXhiMvqEWrz7WEXmmNDPh3C98KSfTuelcprOqWmr3vhKWx8a674mk/tyzkuI7pGFrbEtjuigPk4AGeN1fVaW8Kb9kajzDlsD71QrpdimdtrEM8n5etAHjnj3X7Xwz+0B4f1TUoJ5bKHQmFw8ERkMKGYjzCo5Kg4zj1otdbtfiJ8ftI1jwsJLjSdGsHjk1Dy2RJZHJ+RdwBIAP559s+0SW0ExUyxK5UYGRnFNgsra1JNvAkZPXauM0AeGaZo134g034x6Xpw3XVzqVwsK/wB9gAQv44x+Ncn4fs/hC3he3g8T/wBrWmtxxCO70s/bDKZBwQEBwQT9B64r6jSCJJXkRFDv95gOTUEmm2UsvmSWsTP/AHitAFbw3ZWeneGrC00tHjs4YESBJM7kQAAKc88DitOkVQqhVAAHQCloA8w+NniXWfDum6L/AGbezaXpt3dmPUtTgg817ZMfLjg7cnPOM8fgfPPCVza3fx10CbTvEmseJLb7HOq32pBtu7glYyyqSBkZ4xk9a+j5YY54ykyK6HqGGRUMWn2kJUxW0aFTkYXpQBZrnY/G2lyfEKbwaEuRqUNmLxpCg8oqSBtDZzu5BxjGO9dFXI+HPBH9k+Ltb8RahdC9v9Tn3LJs2+VEBhIwMnhQOueTk8dAAddRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUVxPxk/5I34m/68m/mKAO2org/AnjLw/H8P9ES88RaYk6WMSust7GGUhBwQWzmuR+A2vWmgfAN9W1m4MVlYyzySOQTtG8nAHcknp3JoA9qrM1jxFpWgzWEWrXYt31G5FragozeZKQSFyAcdDycCvNm+NmrwaaNdvfh/qEPh3h2vVvEaZIz0cw44/wC+uKX4s6hbarD8PNQsJRNbXWvW8sUg6MrRsQfyNAHrdZdv4l0i68TXfh+C8VtVs4kmnt9jAojfdO4jB+gNcp4q+JsmieJovDPhzQJvEGsfZxcTxLcLBHAh6bnIPzHrjHSuL+HutyeIf2ifEd/cabc6XO2nQJLaXWN8TqqgjI4I4yCOoINAHt8NxDcBjbyxyhGKMUYNtYdQcd/apK8l8H+JNG8PeBvG2uaFoTWqaXqN5JPaG7ZxcSR9XDlfl3YHGDjHeopvjtcw6RFr/wDwhGo/8I2dnnag1ygdAxA3CLGWXJwCSM9cUAev0VxvjL4i2vhfTdKksLGXWb3WpNmn2kEgTzvl3Fi54VQCOcHqOK57w/8AFrX9U+IEfhXVvAx0qfyvPlkOqCUrEcgOq+WNw3YHB4z7UAep0VW1G7/s/S7q82eZ9nheXZnG7apOM9uleRxfHy9uvDcfiGx8CX0+kRRq99c/a1XyT/F5alcyKvTcdooA9loryS7+OpgtF1y38I6hN4U8xUk1d5lR1UnbvEGCSuTwSRn0rr/F/wAQLLwtpunyQWs2q3+qsU06xtyFa4IG4nceFUAgknpkUAdZRXnvh/4n3d14qtPD3i3wxceHb7UI3exY3S3EVxsGWUMFXDAc4x/TNPUvi/eReMNY8MaJ4SudW1LTZVUbLpY4nQorbmcr8hy2AoDZwTxQB6dRXkdj8crvXLV4fDngjUL7WLRnW/spLlYUtWUkbfNIO5jjoF+uK67w78SNG174fy+LJPMsLS1SQ3kc4y9uyZ3KcdTxxjrkd+KAOuoryI/G3VxpZ14/D7UP+EcA8w3ovEMwi6+Z5OOmOfvfpzXR+L/inpvhfwhoniW3tpNT07VruKBDC211SSN3DBcHcfkxt45PUYoA7qivL774uato3hyPXNf8FzafYm/ht5Ga/VzHBJ/y2OExkHAKZ6kfNXR+NvHkXhG10ZoLI6jc6xfR2kECy+Xwwy0mdp4UY7dxQB1tFIrbkDYxkZwa8q1P4xa3plrNqs3w81NNCgOZbqa6RJ0TOCxgwcfQsD64oA9WrL1jxLpGgXOn2+r3gtpdSuBbWilGbzJCM7eAcfU4FYfir4kaV4a8J2GtxxTaidUeOPT7WDAe5dxlRz0GOST0ryfx34w1bxD4p8DWmv8Aha50C5j1hJo91wtxFKhwOJAB8wPUY7igD6IrLj8S6RL4om8OR3gOrQW63Mltsb5YycA7sbTz2zmuW8XfEtvD/iK18N6BoU2v63Lbi5e3S4WBIYs4BZyDgnsMfzFcP4K16bxD+0lqd5eaVc6Tcro8cU1nc4LRurLnDDhlPUHuKAPdaK8stvjHf6p4j1HRtC8HXGoTaZqctndyC8VI0jSQoJASvLHBOwdB/FV7WfileL4hutH8HeFp/EU9gQt7L9rW2jhcjPlhip3MOM4GBnrQB6LRXB6b8WNJu/Aur+I76zurB9EZ4tQsJQDLFKuBsHY5JAB4HPak8JfELWdf1SC31jwZd6Ra3cZktrwXa3CN3w+0DYSOnX0oA72ivMJ/jBfT6zqUXhvwZe61pel3TWt1ew3KK+9Pv+XCRl8H3Ge1emxSCWJZE6MMjNADqK851z4q3MXim80Dwd4Yn8R3Wn4F7ILpbaKFz/AGKtub1wOKs6B8TJPE2gau+leH518Q6Q4judEup1iYMTxiTBG0jJBxzjp0NAGtbfEfwleeLW8M2usxS6srtGYEjcrvUEsvmbdm4AHjOeDXT14N+z1e6hNp8kN14bH2Sa6uJm1U3QZvN3/dKbc+o3Z7dOa9O8eeNx4FtdLvbnTzdWN5fx2dzOs2z7KHziQjadw49RQB1dFcn4z8dx+E7jQbaKyOoXWt3q20UQl8vZHjLy5wchQRx3z1rH174keIbDUryHRPAF/qdrZMRLcy3SW+/HUxoQxceh4z2oA9EpGYKpZiAAMkk9K4W5+Kdgfg9L4/0qze7t44RJ9kkk8pt3mCNlLYbGDnnBziq+l+PLnxfperPdeE7m38PyWErwXc9yA12m05UxgZj3Lkg5PHpQB6BDNFcQrLbyJLG4yrowYMPYin15n4O8TWei/BfSdT8OeG76aGUBLfS7aXzWjLEnBkbGFBzlj61NoPxTvbnxhZ+HPFvhafw9d6jG8ljJ9rW4jn2DLLkKu0gc9/1FAHZ23iPSrzxFfaFb3YfU7COOS5t9jDYrjKnJGDkehOO9adeFXniW78O/tF+Kf7L0S41q+ubK0WK3ikESjEYyzyHhRyOxJz0r0HwL8RY/F99qOk6jpU+ia5pjL9q0+eQSYVuVZXAAYH6Dt6igDodA8R6V4o0sajoV2Lu1Mjx+YEZPmVirDDAHqD2rTrxX4Q+JNP8JfBPUNb1h2S1tb64LBFyzkykKqjuSSAPrWt/wALi1PTntrvxR4HvNI0W5mSJdQF4kxi3nCmSMKNo57E4+tAHqlZs/iHSrbXBo897HHfm1a7MRz8sKnBdmxhRn1Izg46HGirB1DKcgjINeMeIfhl4t1Q+PJ7e8tRfa9LHHZTtI/yWqkAxH5fl+TIwAQcnnvQB6Ovjvw22n6RfDUh9m1qcW9hIYZB5znOBjblc4PLYHvyK6GvFPi6tt4U0HwDi2kEFhrUJ8i3TcxCxt8qjueMAVvaf8XLuLxNpuleLPCd1oFvqz+VYXj3Szq8h6I4UDYTx3PJ+poA7O78YaDY69caNd6gsWoW1i2oywmN/ltwcF92Mde2c+1W9D1zTvEmjW+raJci6srld0UoVl3DOOjAEdO4rzfX/h34h1jVvFesJPapqOqQrp1k+5itvZcBsfLkuVLtjpuIGcDNd/4V8P23hfwzZ6RZLtitowgGc0AbFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFcT8Zf8Akjfib/ryP8xXbUjosiFXAZWGCD3oA8v8EfDHwZqHgPR7u98N6bLcTWUTyO9qhLMUGSeOteeeDdAv/En7Iur6XpURlu5JWkjiA5fy51kKj3IQge9fSUcSQxiOJQiDooHApsUEUAYQxqgY5bA6mgDxDVfi14a1X4Q3fh/TFuZfEF7pr2I0hLSQSxyumw7uMALnOc9qr+INHudB8DfCvTL3/X22s26OB2PltmvcTplkZvNNrF5mc7tvNTyQRTKFlRXUHIBHSgDxS71iy+Hn7Qet6z4seS10rXLG3a1vfJd41eOMIUJUHDfKT+XrTfAOuQeJP2ivEer2VvcQWlxp0HkG5iMbSIAF37TyASpIzziva57WC5QLcRJIo6Bhmkjs7aFg0UKIyjAIXGBQB4Hov/JGfin/ANf2pfzrpNdRR+yncYAGdEjJ49lr1pbeFd+2NR5n3+PvfWhYIlh8lY1EeMbccYoA+ffiRd/YdB+GV1JdtpMcIdl1ZIDO1vJ5SbU8sZ3BucjB+7W58LrrRNb8fXOtXvjaPxD4jktRAiNaNaFIVOdqRMo4zyevrXQ/ETwLrWqeItD8ReE309rrSY5IhY6gjGGRXxkgryp47e345ukeB/Fus/ELSfE3i6PSdPGjpIttbaUjYYuu1i7vyeM4HQfnkA9J8R/8irqv/XlN/wCgGvIdCUf8MhXpA5OjTZ49jXuBGRg1GlvDHEY441VD1UDg0AeJ60gH7HQwuD/ZFqTx7xVj/EbQkuNF+Heu6vaXV3oVjbtBqItQ++FZEXa/yHdgEc49AO9fQi20K2/kLGoixjZjigQRCAQiNfLAxsxxigDw/wAGaV8JLzxppsnhGe/1DUYS0sUw+0vHB8p+80nygnpjr0rf8AqD8b/iISASLi2wfT9yK9Mh06zt5N8FtGjeqrUwgiWYyhFEjDBbHJoA8j+CqD/hLviKSvI8SXWDj/bNcn4U0O98Q/A74gaVpkZku5tTuTFH3cq6ttHuduPrX0OkEUcjyRxqrv8AeYDk0RwRRM7RRqpc5YgdTQB4gfi54al+EMuhW6XTeIptOax/sZbSTzVnZCmD8uNoJznPT34rP8Q6JdaD8H/hppmorieHxJYiReuCVkJH617y2m2Tzea1rEZM53Feankgimj2SxqyjsRxQBi+KvDkHirwPqOgzhVS9tTErEfcbGVb8GAP4V4f8LbjU/H3jfRl1yGRF8GWDWciyc5uixVm9zsRQfevouTesLeSqlwp2BjgE9smuD+FHgvUfCWj30niCSGbWNRvJbq7mhJKu7tnIJAOMY60AdvfSTQ6fcSWkYlnSJmijPRmA4H4mvlLVfFNx4j8C6tJ4g8a6+fEDwyifw/bW5iijwCSroEwEAHJLZx719aVWbTbNpjK1tEZD1bbzQB4V4qt7i1+H/wz8S/Z5biw0WSJ74QoXaON41HmYHYbf1FR/ELx5onjTxV4GTwy097bWusRmW9FuyQhm6RgsAWbAJOBgV78LeJYfJEaiPGNuOKhTTLKNcJaxKM54XvQB49rGqWngD9oK71/xSZLbRtY02JIL7ymeOOVAFKNtBweM/iKg8Ha/beJ/wBpTU9V06C5is5dHRYHuITEZlDgbwp5Ckg4yASBnFe2z20Fymy4iWRfRhmmx2VtCytFAiFRhSF6UAeYfBdB/bXxAYrz/wAJVe4OP9oV5zceH/B+hfE7xZD8Uvttgt9qEl7p98jTrDNHIxbbmM4yM45r6ZSCKOR3jRVZ/vEDrTLizt7oAXMKS46bhmgDyXw1bfDvSfh34ivtF07UrzQp5PKvke3ld7hTtUyKsh3FQGyT1G1iBkVz/gbXbfTviVpGj/DjxFqGu+F5o5fttpdRyNHp+F/dhHkUFcnjb9c9ePe4rWCGIxxQoiHqoHBpkOn2lvIZILeNHP8AEq80AfPHjTXfDem6tqur+AdZ1jQfGL3JE2jLaybb2Xfgl4ipQg8ndnvnqa+gdFubi80OzuL2MRXEkKtKg6K2OQPxqWTT7OabzZbaNn/vFeasgADAGBQB4Z4Y8TaX8LfiH4zsvHLvpiapqkuo2N68DvHPHId20MoPI9PXNanww87xB8VvF/jS3tp7fStS8mG08+Mo0qxxhN+08gHGRn1r1m4s7a6x9phSXHTcM06GCK3j2QRrGvooxQB5f+z1x8N5c/8AQQuP/RjV2PxB8MJ4x8AavobBTJdW58kt0WVfmQ/99AV0EUEUO7ykVNx3NgdT60+gD56+FOoX/wASfHOm6pq8Uix+F9MSxCyD71ySfMf64ABH0qrqXjC+1Dxb4gtPF3jLXfD11Z3skVjpGkW5RpoQcRlcId5Ydycd+BX0VFawQSPJDEiO5yzKME0yWwtJ5RJNbxu46My80AfOukI0f7Fupo4KsokBB7H7XXtUSBPhW4UY/wCJS+eP+mRro1tYEieJYkCP95QODT0jSOMRooVAMBR0AoA+eoPEWt+G/wBm/wALXGiTS2cM1xHFf30UHmva253bnC4OOQBnBxn1IrK0y8tL/wCM3giXTfFWteJ4UkuQ91qAbyY2MJO2IlVyePmxkDC19Li1gWEwiJBGeq44NRx6bZRY8u2iXByML0NAHitz4t0zwf8AtH+J73Xlmi0+Szs43vEhaRLd/Lyu/aCQDzzjtV7wDejxh8cdf8X6TDKuim0is7e4eMoLraAS4BAOMjg+n6evy2dvOxaaFHYjaSwzxSwWsFqu23iSMeijFAHzXp+gX/iH9l/U7fS7d7qeDVZLn7PGDulVJiWAx3xk/hT9P0/4J6raWkJbVZ7+ZkRtNH2t5I3J6MpO0AHvnFfSUcEUIYRRqu85bA6mof7MsvN8z7LFvzndtoAmto1ito0jJKqoAJ7ipKOnSigDyP49XbWEfg28W1lvPs+upKYIFy8gWNiQo7nAPFYXjvxfpHxP1bwhoXgxpr2a21aK/vJhbvGLRIwcqxYDDHJ49VHqK92lginAEyK4U5AYZwaiisLSGYyxW8aOerBeaAJ0BCKD1ApaKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAoqtqWoWukaVd6lqEvk2lnC888m0tsRFLMcAEnAB4AzXn/8Aw0H8Mf8AoZv/ACQuf/jdAHpNFU4NWsrjQ49Yhm3WElsLpJtjDMRXcG24z93nGM1wX/DQfwx/6Gb/AMkLn/43QB6TRVO91ey07Q59YvJvLsLe3a5lm2MdsaruLYAyeOcAZrhY/j/8M5pUjj8S5d2CqPsFzyT/ANs6APRqKoa3ren+HNFudW1m4+zWNqu+aXYz7RkDOFBJ5I6CuMsvjt8ONR1C3srPxH5lxcyrDEn2G4G52OAMmPA5PegD0KiszxF4j0rwpoc+sa/dfZLCAqJJvLZ9u5go4UEnkgdK5XSfjb8Pdd1i10vSvEHn3l3IIoYvsVwu9j0GWjAH4mgDvaKx/FHizRfBmj/2p4lvfsVn5ixeb5TyfMc4GEBPY9q5/QPjJ4D8T65baPoeu/ar+6LCGH7HOm7CljyyADgE8mgDuKKwvFnjXw/4H0+G98UX/wBht55fJjfyZJNz4JxhFJ6A1k+G/i54I8X60mk+Hdb+2X0is6xfZJ48hRknLoB096AOzornfFvj3w14FitZPFWpfYEu2ZYT5Eku8rjP3FOOo61T8K/FPwb421WTTfDGsfbruOEztH9lmjwgIUnLoB1YcZzzQB11Fcx4t+I3hXwLNbReKtV+wPdKzQj7PLLuCkA/cU46jrTfCfxK8J+Obq4tvC2q/bpbZBJKv2aWPapOAcuozz6UAdTRXJ+K/ih4P8EalFYeKNX+w3U0Imjj+zTSZQkrnKIR1U8e1WPCPxB8MeO/tn/CKan9v+xbPtH+jyxbN+7b99VznY3TPSgDpKK47xP8WPBXg3WP7L8Sa19ivfLWXyvss0nynODlEI7HvWl4T8ceHfHNncXXhbUPt0NvII5W8iSPaxGcYdQTx6UAb9FcT4h+MPgXwprs+ja/rn2S/t9vmw/ZJ327lDD5lQg8MDwa3PC3i/Q/Gukvqfhm++22aTGFpPJePDgAkYdQejDnHegDaorhNZ+NXw/8P6zc6Vq+v/Z720fy5ovsVw+xvTKxkH8DXTeG/E+keL9FTVvDt39ssZGZFl8p48lTgjDgHr7UAatFef6l8cvh1pGq3em6h4h8m7s5ngnj+xXDbHRirDIjIOCDyDiuw0HXtN8TaHbaxodz9qsLoEwzeWybgGKnhgCOQeooA0KK86uPj58NbW5lt5/Em2WJyjr9guThgcEcR13OmavZazottq2mzedY3UImhl2Mu5CMg4IBHHYigC5RXm3/AA0H8Mf+hm/8kLn/AON13q6tZPoY1hZs2DW32oTbG/1W3duxjP3ecYzQBcorzb/hoP4Y/wDQzf8Akhc//G673UdXstJ0W41bUJvJsbaEzyy7GbagGScAEnjsBmgC5RXnUHx9+GlzcRwQ+JN0kjBEX7BcjJJwB/q67XXdd07w1olzq+t3H2axtVDTS7GfaCQBwoJPJHQUAaFFefWHx0+HOqalbWFj4i826upkhhj+w3C7nYhVGTGAMkjk11viPxLpPhLRJdX8Q3f2SxhZVeXy3kwWIA4UE9SO1AGpRXB6P8a/h/r+sWulaTr/ANovbuQRwxfYrhd7HtlowB+Jro/FPi7RPBekrqfia9+xWbSiESeU8mXIJAwik9FPagDZorifD3xi8CeKtet9G0HXfteoXO7yofsc6btqlz8zIAPlUnk9q7agAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooA5z4iqW+F3ipVBJOjXgAA6/uXo+HSlfhd4VVgQRo1mCCOn7lK3L69t9N0+4vr6VYbW1iaaaVuiIoJZj9ACaLG9t9S0+3vrGVZrW6iWaGVejowBVh9QQaAJ6KKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACuO+E/ifUPGXww0nXtZ8r7bd+d5nkptX5ZnQYH0UV2Nc/wCBvCcHgbwXY+HbS5kuobPzNs0qgM2+Rn5A92x+FAHQUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAc98QIJbn4Z+J4LaJ5ppdIu0jjjUszsYWAAA5JJ7UfD+CW2+GfhiC5ieGaLSLRJI5FKsjCFQQQeQQe1a+p6jbaPpN3qWoSeVaWcD3E7hS21EUsxwOTwDwKNM1G21jSbTUtPk820vIEuIHKldyOoZTg8jgjg0AWqKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACuK+D/iLU/Ffwp0fWtduBcX915/myiNU3bZ5EHCgAcKB0rtaxPB/hWx8E+FLPw/pMlxLaWe/y3uWDOd7s5yQAOrHt0oA26KKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAMDx5aXF/wDDnxJZ2ULz3NxpN1FFFGMs7tCwCgdySQKPAdpcWHw58N2d7C8Fzb6TaxSxSDDI6wqCpHYggitPV9Tt9E0S+1W93fZrG3kuZtgy2xFLNgdzgGjSNTt9b0Sx1Wy3fZr63juYd4w2x1DLkdjgigC5RRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRUF5e2unWkl1qFzDa28Yy800gRFHqSeBXCXXx4+G1pdeRL4nhZ84zFbzSL/30qEfrQB6FRWT4f8AFOieKrH7Z4e1O3v4AcM0L5Kn0I6g+xrWoAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigArhfgtrWo+IfhBouqa1dyXl9P5/mzyY3NtnkUZx6AAfhXdVleGPDeneEPDlroeiRvHY2u/yldy5G5y55PXljQBq0UUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQB4zqnxj1qw/aD/AOEGWysG0oSRoZSj+f8ANAJM53bepx93pXsqncoPqK+VvEv/ACeY/wD18Qf+kaV7jrHxj8A+HLz7DqviO3S5j+V44Y5J9h9GMasAfY0AdzRWVoHifRfFOni98P6lb39vnBeF87T6EdQfY1q0AFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBh+N7C51X4f8AiHT7CIzXV3pdzBBGCBvdomVRk8ckjrR4IsLnSvh/4e0+/iMN1aaXbQTxkg7HWJVYZHHBB6Ve1zVodB8PajrFyjyQ6fay3UiR43MsaFiBnjOBRoerQ694e07WLZHjh1C1iuo0kxuVZEDAHHGcGgC9RRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAHBfFL4ar8SbTTLW41Ke0trOdpZYoQP32RgcngEeuD1NZFp+z54Gg077NNpSSEjBkaRy+fXdnNZ/x4+LGqeBlsND8Loo1bUUMn2hkD+Smdo2qeCxOevAx0OeORsPhR8TvEtsl9rXxA1G2mkG7yo5pHVM9hh1A/AYoA5zwfbTfDH9pqXw3ptzI1jJIYHUtnfG8Xmpn1K5HP19a+tFO5QfUV8a6RoN94Y/aWstI1XUpdUu7a4TzLubO6TdbhhnJJ4DAde1fZMX+qX6UAOooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACvP8A4G6lfav8GNCvtVvLi+u5ftHmXFzK0kj4uJAMsxJOAAPoK9ArO0DQNM8MaHb6PoVqLSwtt3lQh2bbuYseWJPVievegDRooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigD46+K+n6hq37Tmp2GjXBtry4kt445g5Upm1jycjnpmvW9A/Zu8JQ6IsWq28l3cuvzzvK6tn2CkAf5zmvPvE7qn7ZbF2Cj7TbjJOOTaIBX1RF/qU+lAHyHo0V98Ff2go9Hhunk0+5mjhJY/62GX7hbtlSevsexr68ifzIlcfxDNfKXxxlj1L9o/SbWzOZYVs4JPLPIcyFvwO11r6o08EWEIPXaKALFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBjeMtNudZ8C69pdgqtdXum3FvCrNgF3iZVBPbkijwbptzo3gXQdLv1Vbqy023t5lVsgOkSqwB78g1Y8Q6uugeGNU1l4TOunWc10Yg20uI0Lbc9s4xmjw9q66/wCGNL1lITAuo2cN0Ii24oJEDbc98ZxmgDRooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigDw79oT4Zaz4qk07xF4YUz32noYpLcMAzJu3Ky54yCTx3z7YrCsfjF8Uk0tNJg8AONSVdgu5YZEjz0ztOB/49ivo4jPWovs0O7PlLn1xQB8maH4O8a2vxz0jVfFFteX1xcv9our9YWMSkow2lwNowABjjHAHGK+tov9Uv0pDDGxBKKSOnFPoAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigArzv4CXM938EdAnu5pJ5m+0bpJXLMcXMo5J9q9EqnpOlafomlw6fo1pDZ2UO7yoIF2ouWLHAHqST+NAFyiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAPlP4l/DvXvFn7QusC0tLu1tp0ie31AwP5O5beMD58Y+8Mccj8K0I/iP8avCVm2h3vhs6lPGPLivms5JiR0BLIdrfU4PrmvpkxIzBmUFh3xSPBFIcvGp+ooA+bfhP8LPEWp+Nn8ZeOQ4u2kaZElILs7dXbHAwDgL29sV9KooRAo6AYoVFQYRQB7UtABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAZHi3Sp9d8Fa3pNm0a3F/p9xbRGQkKHeNlGSAcDJ9KPCWlT6F4K0TSbxo2uLDT7e2lMZJUukaqcEgZGR6VJ4m1dtA8J6vrKQidtOsZroRFtocxoW257ZxjNHhnV21/wAJ6RrLwiBtRsYboxBtwQyIG2574zjNAGnRRRQAUUUUAZXij/kUNY/68J//AEW1H/CL6B/0A9N/8BI/8KPFH/Ioax/14T/+i2rVrXmlGCs+r/QiyctTK/4RfQP+gHpv/gJH/hR/wi+gf9APTf8AwEj/AMK1aKXtJ92Pkj2Mr/hF9A/6Aem/+Akf+FH/AAi+gf8AQD03/wABI/8ACtWij2k+7Dkj2Mr/AIRfQP8AoB6b/wCAkf8AhR/wi+gf9APTf/ASP/CtWij2k+7Dkj2Mr/hF9A/6Aem/+Akf+FH/AAi+gf8AQD03/wABI/8ACtWij2k+7Dkj2Mr/AIRfQP8AoB6b/wCAkf8AhR/wi+gf9APTf/ASP/CtWij2k+7Dkj2Mr/hF9A/6Aem/+Akf+FH/AAi+gf8AQD03/wABI/8ACtWij2k+7Dkj2Mr/AIRfQP8AoB6b/wCAkf8AhR/wi+gf9APTf/ASP/CtWij2k+7Dkj2Mr/hF9A/6Aem/+Akf+FH/AAi+gf8AQD03/wABI/8ACtWij2k+7Dkj2Mr/AIRfQP8AoB6b/wCAkf8AhR/wi+gf9APTf/ASP/CtWij2k+7Dkj2Mr/hF9A/6Aem/+Akf+FH/AAi+gf8AQD03/wABI/8ACtWij2k+7Dkj2Mr/AIRfQP8AoB6b/wCAkf8AhR/wi+gf9APTf/ASP/CtWij2k+7Dkj2Mr/hF9A/6Aem/+Akf+FH/AAi+gf8AQD03/wABI/8ACtWij2k+7Dkj2Mr/AIRfQP8AoB6b/wCAkf8AhR/wi+gf9APTf/ASP/CtWij2k+7Dkj2Mr/hF9A/6Aem/+Akf+FH/AAi+gf8AQD03/wABI/8ACtWij2k+7Dkj2MCLS9P03xfZf2dY21p5lhc7/IhVN2JIMZwOep/Ot+sq4/5G/T/+vC6/9GW9atE22ot9v1YopJuwUUUVmWFebfs+f8kJ8Pf9vP8A6Uy16TVPSV0xNLhXQltFsBu8oWYURfeOdu3j72c475oAuUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAGL4gtbe9u9Ft7yCO4he/bdHKgZWxbzEZB46ipf+EX0D/oB6b/AOAkf+FGr/8AIU0L/r/b/wBJp61a2c5RjFJ/1dkKKbd0ZX/CL6B/0A9N/wDASP8Awo/4RfQP+gHpv/gJH/hWrRU+0n3Y+SPYyv8AhF9A/wCgHpv/AICR/wCFH/CL6B/0A9N/8BI/8K1aKPaT7sOSPYyv+EX0D/oB6b/4CR/4Uf8ACL6B/wBAPTf/AAEj/wAK1aKPaT7sOSPYyv8AhF9A/wCgHpv/AICR/wCFH/CL6B/0A9N/8BI/8K1aKPaT7sOSPYyv+EX0D/oB6b/4CR/4Uf8ACL6B/wBAPTf/AAEj/wAK1aKPaT7sOSPYyv8AhF9A/wCgHpv/AICR/wCFH/CL6B/0A9N/8BI/8K1aKPaT7sOSPYyv+EX0D/oB6b/4CR/4Uf8ACL6B/wBAPTf/AAEj/wAK1aKPaT7sOSPYyv8AhF9A/wCgHpv/AICR/wCFH/CL6B/0A9N/8BI/8K1aKPaT7sOSPYyv+EX0D/oB6b/4CR/4Uf8ACL6B/wBAPTf/AAEj/wAK1aKPaT7sOSPYyv8AhF9A/wCgHpv/AICR/wCFH/CL6B/0A9N/8BI/8K1aKPaT7sOSPYyv+EX0D/oB6b/4CR/4Uf8ACL6B/wBAPTf/AAEj/wAK1aKPaT7sOSPYyv8AhF9A/wCgHpv/AICR/wCFH/CL6B/0A9N/8BI/8K1aKPaT7sOSPYyv+EX0D/oB6b/4CR/4Uf8ACL6B/wBAPTf/AAEj/wAK1aKPaT7sOSPYyv8AhF9A/wCgHpv/AICR/wCFH/CL6B/0A9N/8BI/8K1aKPaT7sOSPYw9LsLPTvFWpRafaQWsbWVqxSCMIpO+cZwO/A/Ktysq3/5G/UP+vC1/9GXFatFRtyu+y/IUNEFFFFZlhRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAGV4o0mTX/B+saPDIsUmoWE9qkjjIQyRsoJ9hmjwvpMmgeD9H0eaRZZNPsILV5EGA5jjVSR7HFJ4r1abQfButaxbIkk2n2E91GkmdrNHGzAHHOMijwpq02veDdF1i5RI5tQsILqRI87VaSNWIGecZNAGtRRRQAUUUUAZXij/kUNY/68J//RbVq1leKP8AkUNY/wCvCf8A9FtWrWj+Ber/AEJ+0wooorMoKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAMq4/wCRv0//AK8Lr/0Zb1q1lXH/ACN+n/8AXhdf+jLetWrltH0/Vkx3YUUUVBQV5t+z5/yQnw9/28/+lMtek1T0m/03U9LhvNDuba6sZN3lTWrq0bYYg4K8dQR9QaALlFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBlav8A8hTQv+v9v/SaetWsrV/+QpoX/X+3/pNPWrVy2j6fqyY7sKKKKgoKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAMq3/AORv1D/rwtf/AEZcVq1lW/8AyN+of9eFr/6MuK1a0qb/ACX5Ex2CiiisygooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigDN8R6R/wkHhXVdG8/7P/aNlNaeds3+X5iFN23IzjOcZFHhzSP8AhH/CulaN5/2j+zrKG087Zs8zy0CbtuTjOM4yah8YancaJ4H13VbLb9psdOuLmHeMrvSNmXI7jIFHg/U7jW/A+hare7ftN9p1vczbBhd7xqzYHYZJoA2KKKKACiiigDK8Uf8AIoax/wBeE/8A6LatWsrxR/yKGsf9eE//AKLatWtH8C9X+hP2mFFFFZlBRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBlXH/I36f/14XX/oy3rVrKuP+Rv0/wD68Lr/ANGW9atXLaPp+rJjuwoooqCgrzn4AwyQfA7w/HPG0br9pyrqQR/pMvY16NVDQ9c03xJo0Gq6JdLeWNxu8qZAQG2sVPUA8FSPwoAv0UUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAGVq/8AyFNC/wCv9v8A0mnrVrK1f/kKaF/1/t/6TT1q1cto+n6smO7CiiioKCiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigDKt/8Akb9Q/wCvC1/9GXFatZVv/wAjfqH/AF4Wv/oy4rVrSpv8l+RMdgooorMoKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAz9f0lNf8N6no80rQx6haS2rSKMlBIhUke4zRoGkpoHhvTNHhlaaPT7SK1SRhguI0Cgn3OKqeNNRudH8Ba/qWnyeVd2emXNxA5UNtdImZTg8HkDg0eC9RudY8BaBqWoSebd3mmW1xO4ULud4lZjgcDkngUAbdFFFABRRRQBleKP8AkUNY/wCvCf8A9FtWrWV4o/5FDWP+vCf/ANFtWrWj+Ber/Qn7TCiiisygooooAK5rxz43sfAuixXt5BNd3F1OttZ2duMyXErdFHYDjJJ/ngV0teQ/FzLfFX4ZpJzA15d7gfultse3Pv1xQBqaR8Wrz/hJdP0bxn4UuPDr6oStjcfa1uYpXH8DEKu0/nXpVeR/tABV0nweYeLlfEtr5W37wG184/Hb+lc38TtZvPhD40bxH4alhb/hJrN1urGQ8JcIo23O0DoN3Prz68AHuesavYaDo9zqmr3KWtlapvllfoo/rzxiuM8C/FaDxz4q1XSLfRrqwisYo5YZrptrzq2eTHj5BxkcnIParPw18H2uh+AYbSeVdRN+ftdzO53i4lfDGQnuScYPoB6Vz/hiJIP2k/F8cShEXTrMBQOn7ugDf8a/ElfDGuWegaPo82u67dxGdbOKURLHFnG95CDgEggcHp9Mngv4kjxLr174e1rRbjQdds4xM1nNKJVkiJxvRwBuHI7Dr9cc1pI3/tUeIvPGSulW/k7uy7Vzj2yT+NQeLLqHTv2m9GvS20Q+HpZLoryRGruckfhQB1fxN+Jtt8OtNgdNPbVdQuN7x2STCMiJBl5GbBwoHHTkkCtKfx5pmn/DdPGWrBrWyNpHcNGPnYFwMIOmSSwA6fhXz7e+O/DPibQvGHiPXtYhXXdVsZbTTtPKOTbQAERxA4wCT8zc4JNbnirxDpmufs6+Hl0m8W5Sz1Kxtr0KCBGwTJVsjpkr7UAdoPjXf6eLS/8AFHgi90fQruVY11H7Wsxi3H5TJGFG0ficdOvFbfibxVqenfFrwho9jcgabqdvdPcw+Wp8wqFKncRkYz2I96o/GyOBfgDrSyBQiwQbM/3vOjxj3zXFeK9Im8QeLPhjp013cWjTaZOs0kLlHKhE3LuHIz0OOcE0AfQNebfEf4z6X4Ba4tLXT59a1K1VHuoIW8uO1VyNpkkwQpO4YGCTkdK5aXQYPhP8ZPClr4Wmni07xEtxDe2JlZkLRqCJACTg5Yc+x9TXQ/tA2NtH8FvEd0kEazyG23yBRlv9IiHJ+gA/CgD0K91VbPQJ9VW2uLpYoDMLe3TfLJgZ2qvdj0Arza9+NOo6DPa3PizwPeaRotzMsI1D7akxiJ6F41Hyjvwx/PivTdK50i1/65D+VeQ/E6/X4leIrT4e+HQtxbWl0lxrV2nKQ7c4hB6Fjnn0x9RQB3vjjx/ZeC9Psn+yzalqGpSeVYWNuQGnbGSdx4VRkZPbIrG8P/FW4uvFtr4c8X+GZ/Dl9fxs9izXK3EVxtGWXeFXDAdsfzGcLxlAIvj78P7ab5oksrkR7um7bzj3wB+FTfGkAeLvh20WBcDWTtx97Zhd34dM0AeuUUi8oM+lLQAUUUUAFFFFAGVcf8jfp/8A14XX/oy3rVrC1T7Z/wAJTpx0/wAgyiyusifIUjfBxkdD05wfpVg6te23/IQ0e4UDrJaMJ0/IYf8A8drZxbjG3b9WZqSTdzVorPttd0y6mEEV5Gs5/wCWEuY5P++Gw36VoVk4uO6LTT2CvPvgXYXml/BbQrPU7Sezuo/tG+C4jMbrm4kIypwRkEH8a9BrL8NeI9N8W+HrbW9Dmaaxut/lSMhQna5Q8HkcqaQzUooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAMrV/+QpoX/X+3/pNPWrWVq/8AyFNC/wCv9v8A0mnrVq5bR9P1ZMd2FFFFQUFFFFAHC+IvGc8HxI0/w3YXAtbezsJda1i4KBj9mTKrGuQeS5BJHIA461m6f8QtUsvg7qPxB1a3F4k0jXVlpwdYvJti4jjQuFOWx85Jzy2OBwPQJNI02XUJL6XT7V7yWA20lw0CmR4c58stjJXPO3pXDfGaztdP+A+v2mn20NrbQ20axwwRhEQeanAUcAUAdzBqAn0SLURGQJLcT7M9Mruxmsf4feLv+E78C6f4jFl9g+2+Z/o/m+Zs2StH97AznZnoOtchZSfFf/hEbfy7fwb9m+wrtLXF1v2eXxn5MZxXH6H4k1Dwp+xja6no8phvQJYYph1j33rqWHuATj0ODQB9B1xWu+INTsvjB4U0S2udmnaja3klzD5anzGjVSh3EZGCT0I968pvfAnie1sYrnwf8NtS0fxHBIkiaxJ4lhleUhgX85TJhwwzkcdfTivQvEhZvj54DLrtY2OoZUHOD5a8ZoA1PB/iDU9V+IHjfTL+58200q6to7OPy1XyleHcwyACcnnnNdrXlPhzUH0nxp8XNRiQO9m0E6q3RilqWA/Ss/wV8LdC8beALLxF4sku9S1/V4ftT6n9qdZLdmJKiMA7VC8DGMcenFAHs1ctd+NDY/FHT/CFzYbY9RsHura+8/78iE7otm3qFG7O78Kyfgnruoa/8L7ObWLlru6tpprVrlzlpljchWJ7nGBnnOM1Q+NCHSbfw340iXD+HdWjedwORbSkRyj8flFAGp48+KNn4E8SeHdJurJrn+2Z/LkmE2wWibkXzCMHcMv0yPumtXx/4xHgbwlLrAsW1GfzooLezWTyzPI7hQobBxxk9D0rzLxZoA+I+v8AxGuIh5w0nSodN09lPWZf9Jbb6HeEXPerI10fEvWvhfZ7lkjFudf1Fc52vCvlp9R5xcfhQB7QhYopcBWI5AOcH60teQrotr8Tfi94rsfFrSXej+HBbQWelrMyRF5ULtK4UjccjAz/AEqbwTbf8Ib8bNX8E6TPcNoMmjpqdvazTNILNxIIyiFiSFO7OM9hQB6xXFeD/EGp6r8QPG+mX9z5tppV1bR2cflqvlK8O5hkAE5PPOa4j4ReBNK1yym8Qa6Z7+5sdbuTp0TzOkdlsnL5VVIBYvySc5GB0HN/SdVl0LxJ8Y9Wt1DS2CxXKK3QslozAH8RQB6V4lvJ9O8J6te2jbJ7aymmiYgHDKhIOD15Feb3fjbxJJ+z/omp6de7/Fmt/ZrazkECHzJ3kG47Nu0fu1c9MDGaw9N+G2k6p8FX8W31zqEnia80mS/l1cXcglZmjZvLIztKY+UrjBFd38IrK1uPhL4Rubi2hlntrIGCV4wzRFsglSeVyODjtQA7w5rmu6v8VtetBdLL4e0m0htXAiUA3xAd9r4ycKcEZwMjiu6qC1srWxWRbK2ht1llaaQRRhA8jHLOcdWJ5J6k1PQAUUUUAFFFFAGVb/8AI36h/wBeFr/6MuK1ayrf/kb9Q/68LX/0ZcVq1pU3+S/ImOwUUUVmUFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAUta0qDXdB1DSLxpEt9QtpLWVoiAwR1KkgkEZwfQ0aLpUGhaDp+kWbSPb6fbR2sTSkFiiKFBJAAzgegrP8c3txpvw88RX1jK0N1a6VczQyr1R1iYqw+hANHga9uNS+Hnh2+vpWmurrSraaaVuru0SlmP1JJoA3aKKKACiiigDK8Uf8ihrH/XhP8A+i2rVrK8Uf8AIoax/wBeE/8A6LatWtH8C9X+hP2mFFFFZlBRRRQAVynj/wAC2/jnSLaE3Uthf2Fwt1Y3sP34JR39we4+npXV0UAeYWHwz8Qal4m07VvH3iY65/ZZLWcMdqlvGjHguVX7zcdT0rQX4Yxaj431vXfE9ymqpfwfZLeBotq21tjHlAZOc5yTxk84Fd/RQBwvhfwZ4g8KeA7vw7YeIlaWJ2Gl3stqHa3jJBCMpbD45GeOo44rl7H4afEOx8Y3fiRfGtm1/fJHHct/ZSYkRBgADdgcdxXsVFAHA+MPh3e6z4ksvFPhnWW0PxDbQfZ3nWFZY54s52uh4OD3/wABg8HfDu70jxJd+JPFGrPrWuXUYia5aNY1SMdERF4Vfau+ooA5zxV4OsvEXhTVNJhSK1lvrZ4VuBFu8ssMbsZGfzFZ0vw307UvhgPCGrAOjW0cLzxDa29ANrjrgggH9Oa7SigDyN/hR4p1iKy0vxf4yk1bQrKVZEtBapEZdv3fNcZLgeh69a2fHXwwm8V65oWpadrM2kzaNFIkDwJ86uxUhsk4wNuCpByCeleh0UAea6F8NNYPjeDxP428QnXL6ziMNptt1gjhU9SEXuecn3+lM+JXgDxf45iv9LtvFNva6DeCPNi2nKzIUKt/rNwJy657dcV6bRQBw2m+GvGg8Gapo+reKY5L24hMVnf29ksTWuRjorcn3yDXHeF/hR498HWH2Tw/4w0+2jJLMTo6Ozk9SWL5Jr2qigDhvGHw+uPF+kaPPLqjWPiPR2EttqdvGPlkwA+UPBVsAlfas7R/hrrVx4wtPEXjvxCdcu7BGSzRbdYIoN33iEX+I9yT/IY9KooAKKKKACiiigAooooAyrj/AJG/T/8Arwuv/RlvWrWVcf8AI36f/wBeF1/6Mt61auW0fT9WTHdkNzaW17CYry3iuIz1SVAwP4GqA8PWsPOnT3ennsLeY7B9EbKf+O1q0UlOS0TG4p7mV5OuW3+qurO+Xss8Zhb/AL7XI/8AHK4z4RxXvhL4WaRpGs6RqUL2/nbpDb7j80ztyikuOG9PpXpFY3hLxRYeM/C9pr+jiZbO73+WJ0Cv8rshyAT3U96rmT3QuV9GW7PWtNv5DHaXsMko6xbsOPqp5H5VeqveadZ6jF5d/aQ3KeksYbH51S/sCOD/AJBt7e2Posc3mIP+ASbgB9MUWg9nb+v66B7yNWisrbrtt0ey1BR2YNbv+Y3An8B+FH9uNBxqOmX1r6usXnJ9cx7iB9QKPZt7a/194cy6mrRVSz1Ww1AkWV5BOw6okgLL9R1H41bqGmnZjTT2CiiikMKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAMrV/+QpoX/X+3/pNPWrWVq/8AyFNC/wCv9v8A0mnrVq5bR9P1ZMd2FFFFQUFFFFABWB458L/8Jp4J1Lw99s+xfbo1T7R5XmbMMGztyM9PUVv0UAU7fTxBocWneZuEdsIPM24zhducVyehfDDT9P8AhCngDV7ptSs/LkjkuFj8pm3ytKGAy2CpYY5PKg+1dxRQB57YeAPGFpDBYS/Eq+k0uDaqxppsK3BQdFM5JJ+u3PvW/qnhL+0viBoXib7b5f8AZEFxF9m8rPm+aoGd2eMY9Dn2ro6KAOZ0XwZHpXiTxRqk90LuPxDLE72zQ7REqR7CpOTuz9BXL2nwp1/RdPl0Xwx8QL3TPD7s2yyaxjmmt1Ykskc5OVHJxwcdevNenUUAZXhnw3p3hHw3Z6HosbR2dmm1NxyzEkksx7kkkn60ninQIPFXhPU9Cu28uK/t3hMm3d5ZI4YDuQcH8K1qKAOU+HXggeAfC76W+otqdzNdSXVzeNF5ZmkfHJXc3ZVHXtWT8PPhPbeANe1bUY9Te+F4PKs4Wh2Cyg8x5DEp3HILPnt0zjmvQaKAOF134dXc/jCbxR4Q8RzeHdVu4VhvSLVLmG6VeFLRsR8wAAznoPrm94Q8Cjw3qOoaxqeq3Gt67qQVbq/nRY/kX7qJGvCKPQZrrKKAOc8EeE/+EN0KbTvtv2zzb2e68zyvLx5jltuMnpnGc81FpHgmHTvEHirULq5F5D4keMyWzRbRGqxeWVJyd2QT2FdRRQB5dbfCDVbbQn8NR+PNQHhja6R2C2kYmCNn92Z87imTyABkcZArt/B3h3/hEvBumaCLr7X9ggEPn+Xs8zHfbk4+mTW1RQAUUUUAFFFFABRRRQBlW/8AyN+of9eFr/6MuK1ayrf/AJG/UP8Arwtf/RlxWrWlTf5L8iY7BRRRWZQUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBU1XTbbWdGvdLv1ZrW9t5LeZVbBKOpVgD24Jo0rTbbRtGstLsFZbWyt47eFWbJCIoVQT34ArK8fXM9n8NvEt1ZzSQXEOk3UkUsTlXjYQsQykcggjIIo8A3M958NvDV1eTST3E2k2skssrlnkYwqSzE8kknJJoA6CiiigAooooAyvFH/Ioax/14T/8Aotq1ayvFH/Ioax/14T/+i2rVrR/AvV/oT9phRRRWZQUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAZVx/yN+n/APXhdf8Aoy3rVrKuP+Rv0/8A68Lr/wBGW9atXLaPp+rJjuwoooqCgriPg54f1Pwt8JtG0fXrX7Jf23n+bCXV9u6eRhypIPysDwe9dvWD4J8WW3jjwdY+IrC3mtre88zZFNjcuyRkOccdVJoA3qKKKACiiigCpe6XYajj7dZwXBX7rSRglfoeo/Cqv9hmD/kHalfWvojS+cn0xJuIH0IrVoq1OSVrkuKZlBtetvvJY6gg7oWt3/I7gT+I/pR/byQ/8hGxvbL1Z4fMQf8AAo9wA+uK1aKfMnuv6/ryCzWzK9nqNlqCFrG7guVHUxSBsfXFWKpXmj6dfv5l3ZQyyDpKUAdfow5H4Gq39iz2/wDyDdWvIB2jmYXCf+P5b8mFFoPZ2/r+ugXkuhrUVledrtsP3traX692gkMLf98Nkf8Aj9H/AAkFtD/yELe7sD3NxAdg/wCBrlP1o9nLpqHMupq0VDa3ltexebZXEVxH/ficOPzFTVDTWjKCiiikAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBlav/wAhTQv+v9v/AEmnrVrK1f8A5Cmhf9f7f+k09atXLaPp+rJjuwoooqCgooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAyrf/kb9Q/68LX/0ZcVq1lW//I36h/14Wv8A6MuK1a0qb/JfkTHYKKKKzKCiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAK+o2Ftqul3WnahF51pdwvBPGSRvR1KsMjkZBPSjTrC20rS7XTtPi8m0tIUggjBJ2IihVGTycADrWL8QpHh+GPiiWF2jkTR7tldTgqRC+CD2NHw9keb4Y+F5ZnaSR9HtGd2OSxMKZJPc0AdFRRRQAUUUUAZXij/AJFDWP8Arwn/APRbVq1leKP+RQ1j/rwn/wDRbVq1o/gXq/0J+0wooorMoKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAMq4/5G/T/+vC6/9GW9atZVx/yN+n/9eF1/6Mt61auW0fT9WTHdhRRRUFBXG/CXwzqPg/4XaRoWtLGt7aed5oifeo3TO4wfowrsq5zwB4uXx34G0/xGlmbEXvmYtzL5mzZK0f3sDOdmenegDo6KKKACiiigAooooAKKKKACiiigAooooAoXWh6ZeymWeyi84/8ALZBsk/77XDfrUH9kXtv/AMg7WLhB2julFwn5nD/+PVrUVaqSWlyeVGV9q1q2P+kafBeJ/ftJtjH/AIA+B/4/R/wkVjF/x/efYHubuFo1H/A/ufrWrRT5ovdBZ9GRwzw3MQkt5UljPRo2DA/iKkrOm8P6XNKZRZpDMes1uTC5/wCBIQf1qL+y9RtubDWJGHaO9iEyj8Rtb8yaOWL2f3heS3RrUVlfbdXtv+PrS0uVH8dlOCfrsfbj6AmlXxHpoYLdyvYueNt5G0PPoCwAP4E0ezl01DmXU1KKbHIksYeJ1dG5DKcg06sygooooAKKKKACiiigAooooAKKKKACiiigDK1f/kKaF/1/t/6TT1q1lav/AMhTQv8Ar/b/ANJp61auW0fT9WTHdhRRRUFBRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBlW//I36h/14Wv8A6MuK1ayrf/kb9Q/68LX/ANGXFataVN/kvyJjsFFFFZlBRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAEN5aW9/Yz2d9Ek1tcRtFNFIMq6MMMpHoQSKLO0t7Cxgs7GJIba3jWKGKMYVEUYVQPQAAVg/Ef/klniv8A7At5/wCiHo+HH/JLPCn/AGBbP/0QlAHSUUUUAFFFFAGb4jikn8K6rFAjSSSWUyoiDLMShAAA6mmf8JFZf88NS/8ABXc//G61aKtSVrNEtO90ZX/CRWX/ADw1L/wV3P8A8bo/4SKy/wCeGpf+Cu5/+N1q0U7w7P7/APgB73cyv+Eisv8AnhqX/gruf/jdH/CRWX/PDUv/AAV3P/xutWii8Oz+/wD4Ae93Mr/hIrL/AJ4al/4K7n/43R/wkVl/zw1L/wAFdz/8brVoovDs/v8A+AHvdzK/4SKy/wCeGpf+Cu5/+N0f8JFZf88NS/8ABXc//G61aKLw7P7/APgB73cyv+Eisv8AnhqX/gruf/jdH/CRWX/PDUv/AAV3P/xutWii8Oz+/wD4Ae93Mr/hIrL/AJ4al/4K7n/43R/wkVl/zw1L/wAFdz/8brVoovDs/v8A+AHvdzK/4SKy/wCeGpf+Cu5/+N0f8JFZf88NS/8ABXc//G61aKLw7P7/APgB73cyv+Eisv8AnhqX/gruf/jdH/CRWX/PDUv/AAV3P/xutWii8Oz+/wD4Ae93Mr/hIrL/AJ4al/4K7n/43R/wkVl/zw1L/wAFdz/8brVoovDs/v8A+AHvdzK/4SKy/wCeGpf+Cu5/+N0f8JFZf88NS/8ABXc//G61aKLw7P7/APgB73cyv+Eisv8AnhqX/gruf/jdH/CRWX/PDUv/AAV3P/xutWii8Oz+/wD4Ae93Mr/hIrL/AJ4al/4K7n/43R/wkVl/zw1L/wAFdz/8brVoovDs/v8A+AHvdzK/4SKy/wCeGpf+Cu5/+N0f8JFZf88NS/8ABXc//G61aKLw7P7/APgB73cyv+Eisv8AnhqX/gruf/jdH/CRWX/PDUv/AAV3P/xutWii8Oz+/wD4Ae93MOG8TUfFVpLbwXaxw2VwrvPZywqCzwkDLqMk7W6elblFFTKSdrDSsFFFFSMK5L4W+FL7wR8NdL8ParLbzXdn53mPbMzRnfM7jBYA9GHbrXW1y/w38Wy+Ovh/pviK4tUtJL3zcwo5YLsldOp9dufxoA6iiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACkZQylWAIIwQR1paKAMyTw7pjOZILf7JK3Jks3aBifU7CM/jmmf2fqtt/x5av5yj/AJZ30Af8AybSPqc1rUVftJddSeVGT/aOqW3/AB/aOZV/56WM6yD6lW2n8Bmnx+ItLaQRy3X2WU9I7tGgYn0AcDP4Vp02SNJYykqK6N1VhkH8KfNF7r7v6YWa6ighlBUggjII70tZbeHNOVi1pG9i572crQjPuqkKfxBpps9Ztv8Aj01SO6X+5ewDcf8Agce3H/fJo5YvZ/f/AEwu+qNaisn+1NQt8/b9GmwP+WlnIs6/kdrfkpqWDX9LuJfKW8SOY9IZwYpP++HAP6UvZy7BzI0aKKKgoKKKKACiiigDI12QwXOkXJinkjgvS0nkQPKygwSrnagJxlgOnenf8JFZf88NS/8ABXc//G61aK05otJNE2d9DK/4SKy/54al/wCCu5/+N0f8JFZf88NS/wDBXc//AButWii8Oz+//gB73cyv+Eisv+eGpf8Agruf/jdH/CRWX/PDUv8AwV3P/wAbrVoovDs/v/4Ae93Mr/hIrL/nhqX/AIK7n/43R/wkVl/zw1L/AMFdz/8AG61aKLw7P7/+AHvdzK/4SKy/54al/wCCu5/+N0f8JFZf88NS/wDBXc//AButWii8Oz+//gB73cyv+Eisv+eGpf8Agruf/jdH/CRWX/PDUv8AwV3P/wAbrVoovDs/v/4Ae93Mr/hIrL/nhqX/AIK7n/43R/wkVl/zw1L/AMFdz/8AG61aKLw7P7/+AHvdzK/4SKy/54al/wCCu5/+N0f8JFZf88NS/wDBXc//AButWii8Oz+//gB73cyv+Eisv+eGpf8Agruf/jdH/CRWX/PDUv8AwV3P/wAbrVoovDs/v/4Ae93Mr/hIrL/nhqX/AIK7n/43R/wkVl/zw1L/AMFdz/8AG61aKLw7P7/+AHvdzK/4SKy/54al/wCCu5/+N0f8JFZf88NS/wDBXc//AButWii8Oz+//gB73cyv+Eisv+eGpf8Agruf/jdH/CRWX/PDUv8AwV3P/wAbrVoovDs/v/4Ae93Mr/hIrL/nhqX/AIK7n/43R/wkVl/zw1L/AMFdz/8AG61aKLw7P7/+AHvdzK/4SKy/54al/wCCu5/+N0f8JFZf88NS/wDBXc//AButWii8Oz+//gB73cyv+Eisv+eGpf8Agruf/jdH/CRWX/PDUv8AwV3P/wAbrVoovDs/v/4Ae93MXTLgXviTULqKG5SE2lvGGntpIdzK8xIAdQTgMvT1raooqZS5ncaVkFFFFSMKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAhvBbNYzjUBCbQxsJxPjyymPm3Z424znPGKLMWy2MA08Qi0EaiAQY8sJj5duONuMYxxisH4j/8ks8V/wDYFvP/AEQ9Hw4/5JZ4U/7Atn/6ISgDpKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACuX+G3hKbwN8PtN8O3N1Hdy2Xm7po1Kq2+V34B/wB7H4V1Fcl8LvFd743+G2l+IdUht4bq887zI7ZWCDZM6DAYk9FHfrQB1tFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABUc9vDcxGO5hjmjPVJFDA/gakooAyj4dso/wDjwafTz2+yTFFH/APuf+O0G21y2H+j31veqP4buHy2P/A04/8AHK1aK09pLrqTyroZP9sXdvxqOj3UY7yW2LhPwC/P/wCO1Ytdb028l8m3vYjN/wA8WbZIP+AHB/Sr1QXVla30Xl3ttDcJ/dmjDj8jReD3X9f15haS6kF9rNhpl3aW99cLBJeMUh38BiMcZ7dRV6vNvF/w+1DW9agXR1htbCGLGZp2K7yTnavOONvTHSuw8M6ZqekaStpq2orfsmBG4jKsq46Fifm/LP8ATWpTpRpqUZXfYzjObm01obNcl8RvHaeAPDsN+mntql5c3KW1tZJL5ZlYgk/Ng4AVSc49B3rra8H8deNvD7/tAafaeI9Tis9N8N2pYlwzB7qUAnhQeiY+hzXMbHrvg/xPa+MvCWn69YoY4ryIOYy24xt0Zc98EEZ9q268R+A3iTSl8Q+KPCejXyXenQXbXumSICAYJDyoBwflJAPHU1n+AvB9r8Wf7Y8VeKru8kv21CWOzeK4dDYopwgiwcLjA5/+vkA7v4QeLNX8V6RrMuuXAuJbXVZ7eJhGqbY1I2rhQM49TzW38StZvvD3w013VtIm8i9tbUvDKUDbGyBnDAg9e4rxnwJrN94R+A/jnULGdnvbO/uEjuG+9vLIm/6gtu+tHiD4V6ZY/A688Tw3t8NZfT1nubr7S5N3uxuWQEkMDnp2wKAPc/Bup3Os+C9I1C+YPc3NpFJKwAG5ioJOBwOa268B8dJcS/BT4bw2d1JaTzavYRJcRH5oi0Ei7h7jOav+PdHX4T/Ci4/4Q57m3vNZvYLaeZJyZCXzuZWYnDkKRu989qAPb6K+X4PDHiPTLzT9R8HeA9V0XVIbmOSa9OspKtxHn51kXPzAiut+KujXNz44s9W8W6PqWteExYKgh09yWsps5Z2jBG7IP3uwHsKAPc6K8U8RafP4h+CGkp8PNQvNd0iK7R7iA3DJcXVqrNuh3nBBBwMHBwvfHOr8G38JRXOqWvhNtT06dVjN5omohla2bn51Ukgbs8kE5wOncA9WrmvHPjex8C6LFe3kE13cXU621nZ24zJcSt0UdgOMkn+eBSeCPBVt4G0y6sLC7uLiCe6e5H2hgzKXOSMgDiuH+LmW+KvwzSTmBry73A/dLbY9uffrigDU0j4tXn/CS6fo3jPwpceHX1QlbG4+1rcxSuP4GIVdp/OvSq8j/aACrpPg8w8XK+JbXytv3gNr5x+O39K5v4nazefCHxo3iPw1LC3/AAk1m63VjIeEuEUbbnaB0G7n159eAD3HXNb07w5otzq2tXK2tjarullYE4yQAMDkkkgADkkgVyHgD4pxePfEOtabFot1pq6aIWje6bEkyyBiC0ePk4AOMnIbtU3w28HWmieAobS4lXUTfN9suZ3O8XErEMZCe5JAIPsPSsDwTGkP7RHxDjiUKixacAAOn+j0Ab/jX4kr4Y1yz0DR9Hm13XbuIzrZxSiJY4s43vIQcAkEDg9Ppk8F/EkeJdevfD2taLcaDrtnGJms5pRKskRON6OANw5HYdfrjmtJG/8Aao8ReeMldKt/J3dl2rnHtkn8ag8WXUOnftN6Neltoh8PSyXRXkiNXc5I/CgDq/ib8Tbb4dabA6ae2q6hcb3jskmEZESDLyM2DhQOOnJIFaU/jzTNP+G6eMtWDWtkbSO4aMfOwLgYQdMklgB0/Cvn298d+GfE2heMPEevaxCuu6rYy2mnaeUcm2gAIjiBxgEn5m5wSa3PFXiHTNc/Z18PLpN4tylnqVjbXoUECNgmSrZHTJX2oA7QfGu/08Wl/wCKPBF7o+hXcqxrqP2tZjFuPymSMKNo/E46deK29b8VanZ/Gbw5odrcj+y7/T55pofLU73VhtbdjcMegOKo/GyOBfgDrSyBQiwQbM/3vOjxj3zXEeINEk8SePfh/ptzd3NqJtCcTtDIUd1GNyFhyAehx24oA+g6818f/GnS/BV8+n2enz6zfQPGLtIW2RWocgDfJggMcghQCfXFc1baLF8LPjf4f0rwzNPHpPiG2mF1YtIWjV4xkSAHOCeB+dbnx7sbWH4WX9xFBGk0t7al3CgFj5yDJ/ACgD0W/wBUWx0KfU1tri6WGAzC3tk3yyYGdqr3Y9AK81vfjTqOgz2tz4s8D3mkaLczLCNQ+2pMYieheNR8o78Mfz4r0/T+dNt/+uY/lXj/AMTr9fiV4itPh74dC3FtaXSXGtXacpDtziEHoWOefTH1FAHe+OPH9l4L0+yf7LNqWoalJ5VhY25AadsZJ3HhVGRk9sisbw/8Vbi68W2vhzxf4Zn8OX1/Gz2LNcrcRXG0ZZd4VcMB2x/MZwvGUAi+Pvw/tpvmiSyuRHu6btvOPfAH4VN8aQB4u+HbRYFwNZO3H3tmF3fh0zQB65RSLygz6UtABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBDeXFta2M9xfyRxWsMbPNJMQERAMsWJ4AAznNFncW11YwXFhJHLazRq8MkJBR0IypUjggjGMVhfERGk+F/ilI1LM2jXYVVGST5L8UfDtGj+F/hZJFKsujWgZWGCD5KcUAdHRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAVzngDwivgTwNp/hxLw3wsvMxcGLy9++VpPu5OMb8de1dHXG/CXxNqPjD4XaRrutNG17d+d5piTYp2zOgwPoooA7KiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAK4XwT8OE8N3Gs3esXMeq3uq30l3LcNFs+8chQMnAHpmu6ooA4bVPh2H+JWjeLtEuUsZbKF7a7txFkXUTZwM5GCCSehzx6ViN8K/EGj6vqf/CFeLptH0jVrhri5s1tkd43b7xikb7mfocV6pRQB514Q+E9toHgrXPDGp3Zv7HVpZWZsFWVXAGMknLDH3vXnFc/c/B3xXfeF38LX3jqeXQo4jHbQLaojAAfIJGB3SKvB25AOBmvZaKAPPtY+G0+q+C/CuijUFik8P39reGTysifyVK7evy53ZzzjHQ10XjDwjY+NfCNzoOql1imVSskZw0bqcqw9wRW/RQB5np3gr4hW8tpbX3xAluNOtZEYJHZRRyyqpyFeTkkHGD0JHWtLxR4U8ZXusS3nhbxlJpsFzGqTWc9pHcRqQMbo933CfxGecV3VFAHm2n/AAx1Tw/4GsdI8KeJ7rS76znac3OxZUnZs7hIjcMMnPtVvwT8P9S0PxPqHiTxJrJ1bV76NYnlWFYUVF6KEXgV31FAHM+CPD+seHNMurTXdduNbd7p5Yri4JLKjHhOSeB9fyqLx/4Ft/HOkW0JupbC/sLhbqxvYfvwSjv7g9x9PSurooA8wsPhn4g1LxNp2rePvEx1z+yyWs4Y7VLeNGPBcqv3m46npWgvwxi1Hxvreu+J7lNVS/g+yW8DRbVtrbGPKAyc5zknjJ5wK7+igDgvDfgrxJ4W8AXXhzTPEiedFIf7MvprQSG3i3A+WyFsNgbhnjGRxxXN6R8NfiBpXjK+8Rr4ys3u9TaH7d/xK0AlWJdqgDdhfl4yK9hooA4Hxj8O73WfEtn4p8May2h+ILaD7O84hWWOeLOdroeDg9/8Bg8HfDu70jxJd+JPFGrPrWuXUYia5aNY1SMdERF4Vfau+ooA5zxV4OsvEXhTVNJhSK1lvrZ4VuBFu8ssMbsZGfzFZ0vw307UvhgPCGrAOjW0cLzxDa29ANrjrgggH9Oa7SigDyN/hR4p1iKy0vxf4yk1bQrKVZEtBapEZdv3fNcZLgeh69a1vGvwvufEvibR9Z0rXJtIn0m1aG3eBAWVywIbJOCOoKkYINejUUAeb+HPhtq0XjYeKvGmvHW9Thh+z27LAsMcKZzhUXgE5PPvVf4i/D7xl42a7sYfFdvb6JNJHJHZtpqs0ZTBH7zcCfmGfxxXqFFAHE6f4c8ZHwTqmj6v4ojk1C4jaO01C3s1ia2BUD7qtyRyc5B59q4vwv8ACjx74OsPsnh/xhp9tGSWYnR0dnJ6ksXyTXtVFAHDeMPh9ceL9I0eeXVGsfEejsJbbU7eMfLJgB8oeCrYBK+1Z2j/AA11q48YWniLx34hOuXdgjJZotusEUG77xCL/Ee5J/kMelUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBXv7620zTbm/v5RDa2sTTTSsDhEUFmPHoATRYX1tqem21/YSia1uolmhlUHDowDKefUEGsfx/bzXfw18TW9rFJNPNpF1HHFGpZnYwsAoA5JJ4xR4At5rT4a+Gbe6ikhnh0i1jkikUqyMIVBUg8gg8YoA6CiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigArA8EeE7bwP4NsfDtlcS3MFn5m2WYAM2+RnOccdWIrfrifg74h1TxV8J9G1nXrn7XqFz5/mzeWqbts8iD5VAA+VQOB2oA7aiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigCrqmpW2j6PeanfuUtbKB7iZwpYqiKWY4HJ4B4o0vUrbWNHs9TsHL2t7AlxC5UqWR1DKcHkcEcVl+O7O41D4deI7Kyhae5udKuooYkGWd2iYKo9ySBR4Es7jT/h14csr2FoLm20q1imicYZHWJQyn3BBFAG9RRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAVjeEfC1h4L8K2egaQ0z2dnv8szsGc73ZzkgAdWPatmuD+Cmsahr/AMH9E1PWbuS8vZ/P8yeU5Z8XEijP0AA/CgDvKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAKesapb6Hod/q16HNtYW0lzKIxltiKWOB3OAaNH1S31zQ7DVrIOLa/to7mISDDbHUMMjscEVQ8bafdat4A8Qadp8XnXd5plzBBHuC73eJlUZOAMkjrxR4J0+60nwB4f07UIvJu7PTLaCePcG2OkSqwyMg4IPTigDbooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKy/DXhzTfCXh620TQ4WhsbXf5UbOXI3OXPJ5PLGtSvPvgXf3mqfBbQrzU7ue8upPtG+e4kMjti4kAyxyTgAD8KAPQaKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAIbyaW3sZ5re2e6mjjZ47dGVWlYDIUFiACTxkkDnk155/wm3xO/6JH/5ctt/8TXpNFAFOe5vU0OS6h0/zb9bYyJY+cq75duRF5nQZb5d3TvXBf8Jt8Tv+iR/+XLbf/E16TRQBT1e5vbPR7q40nT/7SvY4y0Nn5yw+c3Zd7cL9TXD2vjL4ky3kMdz8Kfs8LyKsk3/CRWzeWpPLYC5OBzivRKKAM7xBe6np2hXF1oWk/wBs38e3yrH7Stv5uWAP7xuFwCTz1xjvXJaX4v8AiHdata2+pfDD7BZyzKk93/wkFvL5CE4L7AuWwOcDrXfUUAZHibUdY0vRmufDmhf27eh1UWf2xLbKnq29wRx6VzmieK/H99rVtbaz8Nf7KsZGxNe/29BP5IwedijLc4GB613VFAGJ4r1TXdI0qOfwx4c/4SG7aYI9r9uS12JtYl97gg4IUY6/NntWL4c8T+OdS1yG18QfDz+xLBwxkvf7bguPLIUkDy1GTk4HtnNdrRQBz/i3WPEej21u/hbwt/wkcsjkTR/2jHaeUuODlwd2fQVn+F/EnjPVdXNv4l8Bf2BZiIsLv+2IbrLgjC7EAPOTz7V2FFAHNeLtc8UaO1oPCvg//hJBKH88/wBpxWnkYxt++Duzk9OmPeofCfiDxfq+oTReKPBH/CO26Rbo7j+1obvzHyBt2oARxk59q6uigDlfFmv+LdIvYIvC3gr/AISKB490s39qxWnlNn7u1wSeOcipPCOueKdYkuh4q8H/APCOLEFMDf2nFd+eTncPkA24wOvXPtXTUUAch4p8R+M9J1Zbfwz4D/4SCzMQY3f9sQ2uHJOU2OCeAAc+/tV7wlrPiTWLe5fxT4V/4RySNlEMf9ox3fnAjk5QDbj0PrXQ0UAcX4j8T+ONM1uW18PfD3+27FVUpe/23BbbyQCRsYZGDke+K2PCmq6/q+myzeKPDf8Awj10sxRLb7fHdb0wDv3IABySMe3vW5RQBw2u+KvHthrdza6J8N/7WsY2Ahvf7dgg84YBJ2MMrzkc+ldF4Z1HWdU0cXPiPQv7BvfMZTZ/bEucKOjb0AHPpWvRQBwOq+LviHaatdW+mfDD+0LOKVlgu/8AhILeLz0B4fYVyuRzg9K6zw9fapqOg291r2kf2NqEm7zbH7Stx5WGIH7xeGyoDcdM47VpUUAeeXfjL4kQ3s8Vr8KvtMCSMsc3/CRWyeYoPDbSuRkc47V2ujXV/e6NbXOr6d/Zd7Im6az89ZvJb+7vXhvqKvUUAebt41+JoYhfhJuAPB/4SS2Gf/Ha7y2ub2XQorq40/yL9rYSPY+crbJSuTF5g4OG+Xd071cooA82/wCE2+J3/RI//Lltv/ia727ub2HQp7q10/7TfpbNJHY+cqeZKFyIvMPAy3y7ug61cooA83Xxr8TSwDfCTaCeT/wklscf+O13Ws3V/ZaNc3Okad/al7Gm6Gz89YfOb+7vbhfqavUUAee2fjH4kTX0EV38K/s1u8irLP8A8JFbv5Sk4LbQuTgc4HWuv8Q32qaboU91oGj/ANtX6bfKsftS2/m5YA/vG4GASeeuMd606KAOC0rxd8QrvV7W31T4Y/2dZyyqs93/AG/by+ShPLbFGWx6Cul8T6lrWlaP9o8N6D/b175ir9j+2JbfKc5be4I444962KKAOG0LxV49v9btrXW/hv8A2TYyMRNe/wBuwT+SMEg7FGW5wOPWt3xXquv6RpsU3hfw3/wkN00wR7b7fHa7EwTv3OCDyAMe/tW5RQBxfhvxN441PW47bxD8Pf7DsWVi97/bUFzsIHA2IMnJ49q6TQtC03w1osGk6HaraWNvu8qFWJC7mLHkknksT+NaFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQB//Z)

As shown, “a” is the pointer variable, it is having some hexa-decimal value, this hexa-decimal value is the memory address where value of variable “b” is stored, that is where the value “Hello World” is called stored in memory. Accordingly, we can say that value of variable “b”, “Hello world” is at address “0x1040b120” in memory, and this address is stored in variable “a”. We can access the memory location “0x1040b120” using this variable “a”.

To summarize, **Pointer** is a variable that stores the memory address of another variable.

Next, let us learn how to create a Pointer in Golang.

**Declaring Pointer**

Consider the below pseudo syntax:

**var pointer\_name \*Data\_Type**

Considering it as reference, let us see how we can declare pointer of “Hello world”.

var a \*string

As learnt earlier, pointer is also a variable, so we used “var” keyword to declare “a” will be variable, and now we want this variable “a” to hold the address where “Hello World” is stored in the memory, now “Hello World” is a string type value, so we used string as data type and \* is the special character which is termed as the **dereferencing operator** used to declare pointer variable and access the value stored in the address.

So, above is a pointer of type string which can store only the memory addresses of string variables.

Till now, we have seen how to declare a pointer, but we are yet to make it hold a memory address, for doing that we need to initialize the Pointer. Let us see how to do that.

**Initialization of Pointer**

//Initializating a variable

Var b = “Hello World”

//Initialization of pointer a with memory address of variable b

Var a \*string = &b

You must have understood the above syntax but would have doubt with this “&” symbol. What does it signify?

“&” operator termed as **address operator** used to returns the address of a variable. So, what is happening have is, we are return the address of variable b, by writing “&b” and then assigning it address to the pointer declaration of “a”.

One need to have clear understanding of significance of “\*” and “&” in pointers. One is used to declare the pointer (\*), while order is used to access the address (&). s

Let us see the whole thing in action:

Step 1: Create a new go file.

Step 2: Name it as “pointer-in-go.go”

Step 3: Copy the copy give below code and paste it in the file and save the file

package main

import (

    "fmt"

)

func main() {

    //declaring and initializing variable b

    var b string = "Hello World"

    //declaring string pointer, a

    var a \*string

    //initialization of pointer

    a = &b

    fmt.Println("value of b", b)

    fmt.Println("address of b", &b)

    fmt.Println("value of a", a)

}

We can also write it as,

package main

import (

    "fmt"

)

func main() {

//declaring and initializing variable b

    var b string = "Hello World"

//declaring and initializing string pointer, a

    var a \*string = &b

    fmt.Println("value of b", b)

fmt.Println("address of b", &b)

    fmt.Println("value of a", a)

}

Step 4: Open the terminal, and run the file using the command:

**Go run pointer-in-go**

**Output:**

A black background with white text

Description automatically generated with low confidence

If you see, as discussed earlier, “&b” is used to return the address, so we can see it is returning address, and that address is getting stored in variable a. So, if we print the variable a, we get memory address of variable b. So, a is holding address of b.

**Note:** This value of “a” (memory address) might differ for you, as it varies system to system.

**Dereferencing the Pointer:**

Now let’s see a small use case. Let try to access the value “Hello world” using the pointer variable “a” rather than the actual variable “b”.

So the above code becomes:

package main

import (

    "fmt"

)

func main() {

    var b string = "Hello World"

    var a \*string = &b

    fmt.Println("value of b ->", b)

    fmt.Println("address of b ->", &b)

    fmt.Println("value of a ->", a)

    fmt.Println("accessing value of b using pointer a ->", \*a)

}

Output:

Text

Description automatically generated

So, using the dereferencing operator \*, we can not only declare but also access the memory location and extract value present at the memory location.

**Default value of a pointer:**

The question is, what if we do not initialize the pointer, what will be the value of pointer in that case, what it will be pointing to?

Let us see that in action:

Step: 1 Create a new file “default-pointer.go”

Step 2: Copy paste the following code into it:

package main

import (

    "fmt"

)

func main() {

    var c \*string

    fmt.Println("value of c ->", c)

}

Please observe, we created a string pointer c, but we have just declared it and not initialized it,

Step 3: Save the file and run it using command:

Go run default-pointer.go

Output:



So what we take out from the output, The default value, if we don’t initialize the pointer in Golang is nil.

What would happen if we tried to derefer this uninitialized pointer?

For that we will make small change in our code, and see the output:

Code:

package main

import (

    "fmt"

)

func main() {

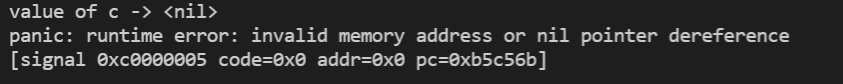
    var c \*string

    fmt.Println("value of c ->", c)

    fmt.Println("dereferencing pointer c ->", \*c)

}

Output:



So, it will throw an error. It is not permissible. One cannot dereference the uninitialized pointer.